



# Technical Information

## Weld-in adapter, process adapter and flanges

Level, pressure, temperature



### Application

The adapters and the flanges are used to connect level, pressure or temperature measuring instruments to a vessel or a pipe.

### Advantages

- High-quality, corrosion resistant materials for use in aggressive media
- Versions without crevices and dead space of the weld-in adapters and process adapters according to international hygiene regulations
- Weld-in adapters with a variety of seals for use in diverse processes

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## General information

### NOTICE

**Maximum temperature and pressure values of the sensor can reduce the specified limit values.**

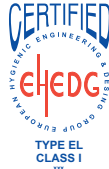
- Observe the maximum temperature and pressure limits of the sensor used!

### Pressure Equipment Directive 2014/68/EU

The adapters listed here do not fall within the scope of the Pressure Equipment Directive, irrespective of the maximum working pressure as they do not have a pressure-bearing volume.

### Suitability for hygienic processes

#### 3-A and EHEDG



The connections listed in this documentation have EHEDG and 3-A approval. Suitable for hygienic applications, see also "Hygienic certificates" documentation, SD02503F. All seals that are FDA-compliant are permitted for 3-A applications.

### Material compliance



The information on suitability for hygienic processes is listed under the version in question. The weld-in adapters have been manufactured in accordance with the material specifications to the latest standard. Particular versions of weld-in adapters, e.g. an older material batch, must be requested and ordered via the TSP workflow.

#### Seals:

Comply with FDA 21 CFR (Code of Federal Regulations)

PART 177 - Indirect food additives: Polymers

- Part 177.1550: Perfluorocarbon resins (PTFE)
- Part 177.2600: Rubber articles (EPDM, silicone (VMQ), Viton (FKM))

Comply with regulation (EC) No. 1935/2004 on materials and articles intended to come into contact with food (Europe)

- BfR (Federal Institute for Risk Assessment) Recommendation XV. Commodities based on silicones: Silicone (VMQ)
- BfR (Federal Institute for Risk Assessment) Recommendation XXI. Commodities based on natural and synthetic rubber: EPDM, Viton (FKM)
- PTFE conform to regulation (EU) No. 10/2011

#### Metals:

Metals meet at least the voluntary standard of the Council of Europe - EDQM Guide "metals and alloys used in food contact materials and articles 2013 (1st edition)".

### CRN approval

Device versions with a CRN approval (Canadian Registration Number) are listed in the corresponding registration documents. CRN-approved devices are marked with a registration number.

Any restrictions regarding the maximum process pressure values are listed on the CRN certificate. CRN approvals for adapters are available in the Downloads area of the product pages: [www.endress.com](http://www.endress.com) → Downloads.

### Ordering information



Product Configurator: [www.endress.com](http://www.endress.com)

#### Product Configurator - the tool for individual product configuration

- Up-to-the-minute configuration
- Depending on the device: direct input of information specific to the measuring point, such as the measuring range or operating language
- Automatic verification of exclusion criteria
- Automatic creation of the order code and its breakdown in PDF or Excel output format
- Ability to order directly in the Endress+Hauser Online Shop

## Symbols

### Safety icons



This symbol alerts you to a dangerous situation. Failure to avoid this situation will result in serious or fatal injury.



This symbol alerts you to a potentially dangerous situation. Failure to avoid this situation can result in serious or fatal injury.



This symbol alerts you to a potentially dangerous situation. Failure to avoid this situation can result in minor or medium injury.



This symbol alerts you to a potentially harmful situation. Failure to avoid this situation can result in damage to the product or something in its vicinity.

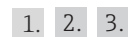
### Symbols for certain types of Information



Additional information

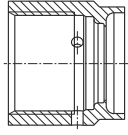
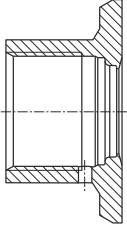
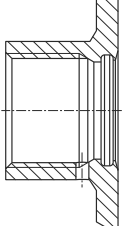
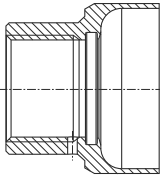
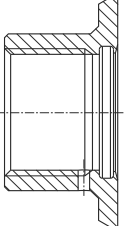
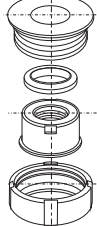


Please recycle component or device.



Series of steps

## Weld-in adapter - Level overview

|                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>[Part 1]</b><br><br><b>Weld-in adapter</b><br><b>Level overview</b>       |  |  |  |  |  |  |
|                                                                              | A0008246                                                                          | A0008251                                                                          | A0008256                                                                          | A0011924                                                                           | A0008248                                                                            | A0008253                                                                            |
|                                                                              | <b>G ¾, d=29<br/>pipe-mounting</b>                                                | <b>G ¾, d=50<br/>vessel-<br/>mounting</b>                                         | <b>G ¾, d=55<br/>with flange</b>                                                  | <b>G 1, d=53<br/>pipe-mounting</b>                                                 | <b>G 1, d=60<br/>with flange</b>                                                    | <b>G 1<br/>adjustable</b>                                                           |
| Material                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                      | 316L (1.4435)                                                                       | 316L (1.4435)                                                                       |
| Roughness µm (µin) process side                                              | ≤ 1.5 (59.1)                                                                      | ≤ 0.8 (31.5)                                                                      | ≤ 0.76 (29.9)                                                                     | ≤ 0.76 (29.9)                                                                      | ≤ 0.76 (29.9)                                                                       | ≤ 0.8 (31.5)                                                                        |
| Order number<br>weld-in adapter                                              | 71258357                                                                          | 71258355                                                                          | 52001052                                                                          | 71258358                                                                           | 52001051                                                                            | 52001221                                                                            |
| Order number<br>weld-in adapter with<br>inspection certificate <sup>1)</sup> | 52028295                                                                          | 52018765                                                                          | 52011897                                                                          | 71093129                                                                           | 52011896                                                                            | 52011898                                                                            |
| Order number<br>replacement seal (5 pieces)                                  | Silicone O-ring<br>52021717 <sup>2)</sup>                                         | Silicone O-ring<br>52021717 <sup>2)</sup>                                         | Silicone O-ring<br>52014473 <sup>2)</sup>                                         | Silicone O-ring<br>52014472 <sup>2)</sup>                                          | Silicone O-ring<br>52014472 <sup>2)</sup>                                           | Silicone<br>profile gasket<br>52014424 <sup>3)</sup>                                |
| Order number<br>welding dummy <sup>4)</sup>                                  | 71174959                                                                          | 71174959                                                                          | 71168889                                                                          | 71166879                                                                           | 71166879                                                                            | 71181945                                                                            |
| Order number<br>blind plug <sup>4)</sup>                                     | 71167850                                                                          | 71167850                                                                          | 71177193                                                                          | 71173810                                                                           | 71173810                                                                            | 71166366                                                                            |
| Order number<br>blind plug with<br>inspection certificate <sup>1) 4)</sup>   | –                                                                                 | –                                                                                 | 71190074                                                                          | 71167291                                                                           | 71167291                                                                            | 71196853                                                                            |
| <b>Measuring instrument</b>                                                  | <b>Suitable for process connection<br/>Option<sup>5)</sup></b>                    |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| <b>Liquicap</b>                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMI51                                                                        | –                                                                                 | GQJ                                                                               | –                                                                                 | GWJ                                                                                | GWJ                                                                                 | –                                                                                   |
| FMI52                                                                        | –                                                                                 | –                                                                                 | –                                                                                 | GWJ                                                                                | GWJ                                                                                 | –                                                                                   |
| FTI51                                                                        | –                                                                                 | GQJ                                                                               | –                                                                                 | GWJ                                                                                | GWJ                                                                                 | –                                                                                   |
| FTI52                                                                        | –                                                                                 | –                                                                                 | –                                                                                 | GWJ                                                                                | GWJ                                                                                 | –                                                                                   |
| <b>Liquipoint</b>                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FTW23, FTW33                                                                 | W5J                                                                               | W5J                                                                               | –                                                                                 | WSJ                                                                                | WSJ                                                                                 | –                                                                                   |
| <b>Liquitrend</b>                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| QMW43                                                                        | W5J                                                                               | W5J                                                                               | –                                                                                 | WSJ                                                                                | WSJ                                                                                 | –                                                                                   |
| <b>Rod probe</b>                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 11371                                                                        | 4                                                                                 | 4                                                                                 | 4                                                                                 | –                                                                                  | –                                                                                   | –                                                                                   |

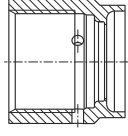
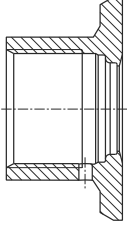
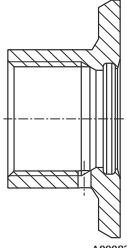
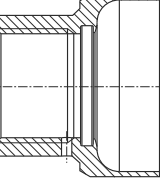
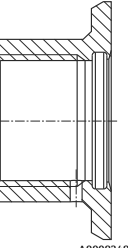
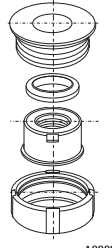
1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG).

3) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

4) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

5) The option can be selected in the Product Configurator via the order feature "Process Connection".

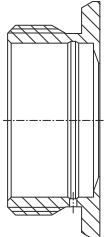
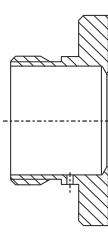
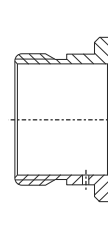
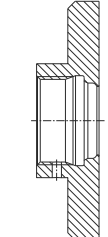
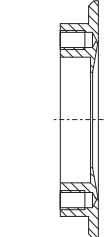
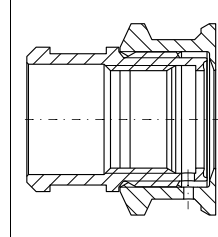
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| <b>[Part 1 continued]</b><br><br><b>Weld-in adapter</b><br><b>Level overview</b> |  |  |  |  |  |  |
|                                                                                  | A0008246                                                                          | A0008251                                                                          | A0008256                                                                          | A0011924                                                                            | A0008248                                                                            | A0008253                                                                            |
|                                                                                  | <b>G ¾, d=29<br/>pipe-mounting</b>                                                | <b>G ¾, d=50<br/>vessel-<br/>mounting</b>                                         | <b>G ¾, d=55<br/>with flange</b>                                                  | <b>G 1, d=53<br/>pipe-mounting</b>                                                  | <b>G 1, d=60<br/>with flange</b>                                                    | <b>G 1<br/>adjustable</b>                                                           |
| Order number<br>weld-in adapter                                                  | 71258357                                                                          | 71258355                                                                          | 52001052                                                                          | 71258358                                                                            | 52001051                                                                            | 52001221                                                                            |
| Order number<br>weld-in adapter with<br>inspection certificate <sup>1)</sup>     | 52028295                                                                          | 52018765                                                                          | 52011897                                                                          | 71093129                                                                            | 52011896                                                                            | 52011898                                                                            |
| <b>Measuring instrument</b>                                                      | <b>Suitable for process connection</b><br>Option <sup>2)</sup>                    |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| <b>Liquiphant</b>                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| FTL33, FTL31                                                                     | W5J                                                                               | W5J                                                                               | –                                                                                 | WSJ                                                                                 | WSJ                                                                                 | WSJ                                                                                 |
| FTL50, FTL50H                                                                    | –                                                                                 | –                                                                                 | GQ2                                                                               | GW2                                                                                 | GW2                                                                                 | GW2                                                                                 |
| FTL51, FTL51H                                                                    | –                                                                                 | –                                                                                 | –                                                                                 | GW2                                                                                 | GW2                                                                                 | GW2                                                                                 |
| FTL41, FTL43, FTL51B, FTL63                                                      | –                                                                                 | –                                                                                 | W5J <sup>3)</sup>                                                                 | WSJ                                                                                 | WSJ                                                                                 | WSJ                                                                                 |
| FTL80                                                                            | –                                                                                 | –                                                                                 | WCJ                                                                               | WSJ                                                                                 | WSJ                                                                                 | WSJ                                                                                 |
| FTL81                                                                            | –                                                                                 | –                                                                                 | –                                                                                 | WSJ                                                                                 | WSJ                                                                                 | WSJ                                                                                 |
| <b>Liquipoint</b>                                                                | <b>As "Accessory enclosed"</b><br>Option <sup>4)</sup>                            |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| FTW23, FTW33                                                                     | PC/PD                                                                             | PA/PB                                                                             | –                                                                                 | PG/PH                                                                               | PE/PF                                                                               | –                                                                                   |
| <b>Liquitrend</b>                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| QMW43                                                                            | PC/PD                                                                             | PA/PB                                                                             | –                                                                                 | PG/PH                                                                               | PE/PF                                                                               | –                                                                                   |
| <b>Liquiphant</b>                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| FTL31, FTL33                                                                     | PC/PD                                                                             | PA/PB                                                                             | –                                                                                 | PG/PH                                                                               | PE/PF                                                                               | –                                                                                   |
| FTL41, FTL43, FTL51B, FTL63                                                      | –                                                                                 | –                                                                                 | PO/PP                                                                             | PG/PH                                                                               | PE/PF                                                                               | PI/PJ                                                                               |

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) The option can be selected in the Product Configurator via the order feature "Process Connection".

3) The option can be selected in the Product Configurator only via the order feature "Type of probe", option 1 "Compact version".

4) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

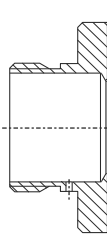
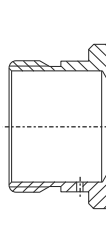
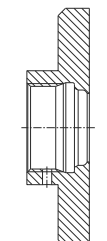
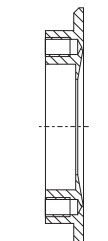
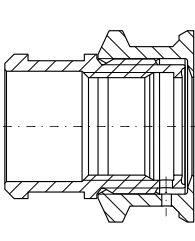
|                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>[Part 2]</b><br><br><b>Weld-in adapter</b><br><b>Level overview</b>       |  |  |  |  |  |  |
|                                                                              | A0008252                                                                          | A0008245                                                                          | A0017639                                                                          | A0008552                                                                          | A0008254                                                                            | A0045641                                                                            |
|                                                                              | <b>RD52</b>                                                                       | <b>UNI D85</b>                                                                    | <b>UNI D65</b>                                                                    | <b>M24 D65</b>                                                                    | <b>DRD DN50<br/>65 mm (2.56 in)<br/>(weld-in flange)</b>                            | <b>G 1¼ with<br/>thread adapter G 1</b>                                             |
| Material                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)/<br>304 (1.4301)                                                      | 316L (1.4404)                                                                       |
| Roughness µm (µin), process side                                             | ≤ 0.8 (31.5)                                                                      | ≤ 0.76 (29.9)                                                                     | ≤ 0.76 (29.9)                                                                     | ≤ 0.76 (29.9)                                                                     | ≤ 0.76 (29.9)/<br>≤ 0.8 (31.5)                                                      | ≤ 0.76 (29.9)                                                                       |
| Order number<br>weld-in adapter                                              | 52001047                                                                          | 52006262                                                                          | 214880-0002                                                                       | 71041381                                                                          | 52002041/<br>916743-0000                                                            | –                                                                                   |
| Order number<br>weld-in adapter<br>with inspection certificate <sup>1)</sup> | 52006909                                                                          | 52010173                                                                          | 52010174                                                                          | 71041383                                                                          | 52011899/ –                                                                         | 71444432                                                                            |
| Order number<br>replacement seal (5 pieces) <sup>2)</sup>                    | Silicone<br>profile gasket<br>52014424                                            | Silicone<br>profile gasket<br>52023572                                            | Silicone<br>profile gasket<br>52023572                                            | EPDM<br>O-ring<br>52024267                                                        | PTFE<br>flat seal<br>52024228                                                       | Silicone<br>profile gasket<br>71075662                                              |
| Order number<br>welding dummy                                                | 71181945 <sup>3)</sup>                                                            | 71114210                                                                          | 71114210                                                                          | –                                                                                 | 71114209                                                                            | –                                                                                   |
| Order number<br>blind plug <sup>3)</sup>                                     | 71166366                                                                          | 71580894                                                                          | 71580894                                                                          | 71171418                                                                          | 71181450                                                                            | –                                                                                   |
| Order number<br>slotted nut                                                  | 52021715                                                                          | 52021715                                                                          | 52021715                                                                          | –                                                                                 | –                                                                                   | –                                                                                   |
| <b>Measuring instrument</b>                                                  | <b>Suitable for process connection</b><br>Option <sup>4)</sup>                    |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| <b>Liquicap</b>                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| FMI5x                                                                        | –                                                                                 | UPJ                                                                               | UPJ                                                                               | –                                                                                 | –                                                                                   | –                                                                                   |
| FTI5x                                                                        | –                                                                                 | UPJ                                                                               | UPJ                                                                               | –                                                                                 | –                                                                                   | –                                                                                   |
| <b>Liquipoint</b>                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| FTW23, FTW33                                                                 | –                                                                                 | –                                                                                 | –                                                                                 | X2J                                                                               | –                                                                                   | –                                                                                   |
| <b>Liquitrend</b>                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| QMW43                                                                        | –                                                                                 | –                                                                                 | –                                                                                 | X2J                                                                               | –                                                                                   | –                                                                                   |

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

3) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

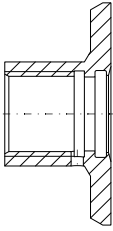
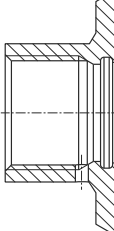
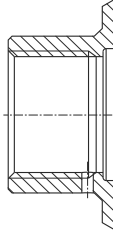
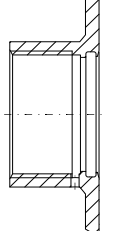
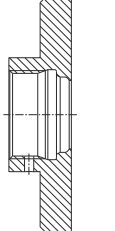
4) The option can be selected in the Product Configurator via the order feature "Process connection".

|                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| [Part 2 continued]<br><br>Weld-in adapter<br>Level overview                  |  |  |  |  |  |  |
|                                                                              | A0008252                                                                          | A0008245                                                                          | A0017639                                                                          | A0008552                                                                           | A0008254                                                                            | A0045641                                                                            |
|                                                                              | RD52                                                                              | UNI D85                                                                           | UNI D65                                                                           | M24 D65                                                                            | DRD DN50<br>65 mm (2.56 in)<br>(weld-in flange)                                     | G 1¼ with<br>thread adapter G 1                                                     |
| Order number<br>weld-in adapter                                              | 52001047                                                                          | 52006262                                                                          | 214880-0002                                                                       | 71041381                                                                           | 52002041/<br>916743-0000                                                            | –                                                                                   |
| Order number<br>weld-in adapter<br>with inspection certificate <sup>1)</sup> | 52006909                                                                          | 52010173                                                                          | 52010174                                                                          | 71041383                                                                           | 52011899/ –                                                                         | 71444432                                                                            |
| Measuring instrument                                                         | Suitable for process connection<br>Option <sup>2)</sup>                           |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| Liquiphant                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FTL33                                                                        | 5ZJ                                                                               | –                                                                                 | –                                                                                 | X2J                                                                                | –                                                                                   | –                                                                                   |
| FTL43, FTL63                                                                 | 5ZJ                                                                               | –                                                                                 | –                                                                                 | –                                                                                  | –                                                                                   | –                                                                                   |
| FTL5xH                                                                       | EE2                                                                               | –                                                                                 | –                                                                                 | –                                                                                  | PE2                                                                                 | –                                                                                   |
| Nivector                                                                     |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FTI26                                                                        | -                                                                                 | –                                                                                 | –                                                                                 | -                                                                                  | –                                                                                   | WDJ                                                                                 |
| Levelflex                                                                    |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMP53                                                                        | –                                                                                 | –                                                                                 | –                                                                                 | U1J                                                                                | –                                                                                   | –                                                                                   |
| Liquipoint                                                                   | As "Accessory enclosed"<br>Option <sup>3)</sup>                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FTW23, FTW33                                                                 | –                                                                                 | –                                                                                 | –                                                                                 | PM/PN                                                                              | –                                                                                   | –                                                                                   |
| Liquitrend                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| QMW43                                                                        | –                                                                                 | –                                                                                 | –                                                                                 | PM/PN                                                                              | –                                                                                   | –                                                                                   |
| Liquiphant                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FTL33                                                                        | PO/PQ                                                                             | –                                                                                 | –                                                                                 | PM/PN                                                                              | –                                                                                   | –                                                                                   |
| FTL43, FTL63                                                                 | PR/PS                                                                             | –                                                                                 | –                                                                                 | –                                                                                  | –                                                                                   | –                                                                                   |
| Nivector                                                                     |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FTI26                                                                        | –                                                                                 | –                                                                                 | –                                                                                 | –                                                                                  | –                                                                                   | PK                                                                                  |

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) The option can be selected in the Product Configurator via the order feature "Process connection".

3) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

|                                                                                                          |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
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| <b>[Part 3]</b><br><br><b>Only for Micropilot</b><br><br><b>Weld-in adapter</b><br><b>Level overview</b> |  |  |  |  |  |
|                                                                                                          | <b>G ½, d=55<br/>with flange</b>                                                  | <b>G ¾, d=55<br/>with flange</b>                                                  | <b>G 1, d=60<br/>with flange</b>                                                  | <b>G 1½, d=90<br/>with flange</b>                                                   | <b>M24 D65</b>                                                                      |
| Material                                                                                                 | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                       | 316L (1.4435)                                                                       |
| Roughness µm (µin)<br>process side                                                                       | ≤ 0.76 (29.9)                                                                     | ≤ 0.76 (29.9)                                                                     | ≤ 0.76 (29.9)                                                                     | ≤ 0.76 (29.9)                                                                       | ≤ 0.76 (29.9)                                                                       |
| Order number weld-in adapter                                                                             | 71653545                                                                          | 71653580                                                                          | 71653587                                                                          | 71653592                                                                            | 71653537                                                                            |
| Order number weld-in adapter with<br>inspection certificate <sup>1)</sup>                                | 71653547                                                                          | 71653581                                                                          | 71653588                                                                          | 71653594                                                                            | 71653541                                                                            |
| Order number<br>EPDM replacement seal (5 pieces) <sup>2)</sup>                                           | 71655736                                                                          | 71655741                                                                          | 71655743                                                                          | 71655745                                                                            | 71653949                                                                            |
| Order number<br>FKM replacement seal (1 piece) <sup>2)</sup>                                             | 71655740                                                                          | 71655742                                                                          | 71655744                                                                          | 71655746                                                                            | 71337274                                                                            |
| Order number<br>FFKM replacement seal (1 piece) <sup>3)</sup>                                            | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | 71567760                                                                            |
| Order number welding dummy <sup>4)</sup>                                                                 | On request                                                                        | 71174959                                                                          | 71166879                                                                          | On request                                                                          | -                                                                                   |
| Order number blind plug                                                                                  | On request                                                                        |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| <b>Measuring instrument</b>                                                                              | <b>Suitable for process connection</b><br>Option <sup>5)</sup>                    |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| <b>Micropilot</b>                                                                                        |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| FMR43                                                                                                    | WJJ                                                                               | WKJ                                                                               | WLJ                                                                               | WNJ                                                                                 | X2J                                                                                 |
| FMR63B                                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | X2J                                                                                 |
| <b>Micropilot</b>                                                                                        | <b>As "Accessory enclosed"</b><br>Option <sup>6)</sup>                            |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| FMR43                                                                                                    | QA                                                                                | QC                                                                                | QE                                                                                | QG                                                                                  | QI                                                                                  |
| FMR63B                                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | QI, QH                                                                              |

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) There is no seal included in the delivery for Micropilot FMR43.

3) FFKM O-ring applies to Micropilot FMR63B only.

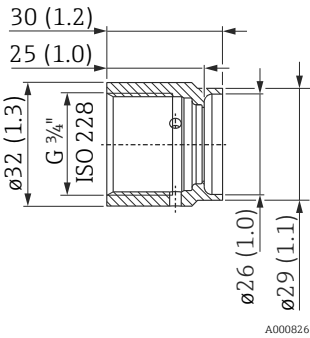
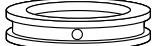
4) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

5) The option can be selected in the Product Configurator via the order feature "Process connection".

6) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

## Weld-in adapter and accessories - Level

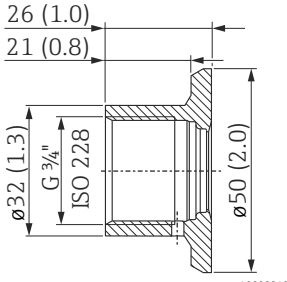
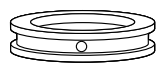
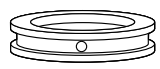
G 3/4, d=29 pipe-mounting

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                               | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 1.5 µm (59.1 µin)</p> <p>Certified according to CRN</p> | 71258357<br>52028295                 |
|                                                                                                                                                                                                                                                                                             | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                      | 71174959 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                             | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): Ra ≤ 3.2 µm (126 µin)                                                                                                                                         | 71167850 <sup>1)</sup>               |
| Seals, pressure ring                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                       | Order number                         |
|                                                                                                                                                                                                          | <b>Standard seal</b>                                                                                                                                                                                                                                                  |                                      |
|                                                                                                                                                                                                                                                                                             | Silicone O-ring, ø 14.9 x 2.7 mm (0.59 x 0.11 in)<br>Material: VMQ 70<br>FDA-compliant                                                                                                                                                                                | 52021717 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | The seal can be easily replaced with this version.                                                                                                                                                                                                                    |                                      |
|                                                                                                                                                                                                                                                                                             | <b>Alternative seals</b>                                                                                                                                                                                                                                              |                                      |
|                                                                                                                                                                                                                                                                                             | ø 15.08 x 2.62 mm (0.59 x 0.10 in)<br>Material: EPDM<br>Complies with FDA, USP Class VI, EC1935<br><br>EHEDG certified                                                                                                                                                | 71529759 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                          | ø 15.08 x 2.62 mm (0.59 x 0.10 in)<br>Material: FKM<br>Complies with FDA, USP Class VI, EC1935<br><br>EHEDG certified                                                                                                                                                 | 71167890 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | ø 14.9 x 2.7 mm (0.59 x 0.11 in)<br>Material: Silicone VMQ 80<br>Complies with FDA, USP Class VI                                                                                                                                                                      | 71086117<br>(3 pieces)               |
|                                                                                                                                                                                                                                                                                             | <b>Pressure ring</b><br>Material: 316L (1.4435)<br><br>The seal with pressure ring enables easy exchange of defective sealing rings.                                                                                                                                  | 52027421                             |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

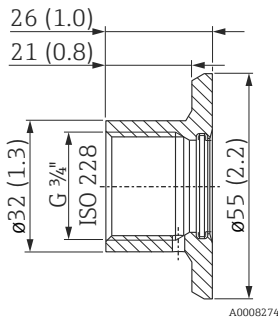
## G 3/4, d=50 vessel-mounting

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                               | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.8 µm (31.5 µin)</p> <p>Certified according to CRN</p> | 71258355<br>52018765                 |
|                                                                                                                                                                                                                                                                                             | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                      | 71174959 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                             | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): Ra ≤ 3.2 µm (126 µin)                                                                                                                                         | 71167850 <sup>1)</sup>               |
| Seals, pressure ring                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                       | Order number                         |
|                                                                                                                                                                                                          | <b>Standard seal</b>                                                                                                                                                                                                                                                  |                                      |
|                                                                                                                                                                                                                                                                                             | Silicone O-ring, ø 14.9 x 2.7 mm (0.59 x 0.11 in)<br>Material: VMQ 70<br>FDA-compliant<br><br>The seal can be easily replaced with this version.                                                                                                                      | 52021717 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | <b>Alternative seals</b>                                                                                                                                                                                                                                              |                                      |
|                                                                                                                                                                                                                                                                                             | ø 15.08 x 2.62 mm (0.59 x 0.10 in)<br>Material: EPDM<br>Complies with FDA, USP Class VI, EC1935<br><br>EHEDG certified                                                                                                                                                | 71529759 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                          | ø 15.08 x 2.62 mm (0.59 x 0.10 in)<br>Material: FKM<br>Complies with FDA, USP Class VI, EC1935<br><br>EHEDG certified                                                                                                                                                 | 71167890 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | ø 14.9 x 2.7 mm (0.59 x 0.11 in)<br>Material: Silicone VMQ 80<br>Complies with FDA, USP Class VI                                                                                                                                                                      | 71086117<br>(3 pieces)               |
|                                                                                                                                                                                                          | <b>Pressure ring</b><br>Material: 316L (1.4435)<br><br>The seal with pressure ring enables easy exchange of defective sealing rings.                                                                                                                                  | 52027421                             |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

**G 3/4, d=55 with flange for flush mounting**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                                                                                                                                                                                  | Order number                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 (29.9)</p> <p>Certified according to CRN</p>                                                                                                                                                                          | 52001052<br>52011897                             |
|                                                                                                                                                                                                                                                                                             | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                                                                                                                                         | 71168889 <sup>1)</sup>                           |
|                                                                                                                                                                                                                                                                                             | Blind plug for sealing the weld-in adapter <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p>                                                                                                                                                          | 71177193 <sup>1)</sup><br>71190074 <sup>1)</sup> |
|                                                                                                                                                                                                                                                                                             | <b>Only for Micropilot FMR43:</b> <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 (29.9)</p> <p>Certified according to CRN</p> <p> Seal not included in the scope of delivery.</p> | 71653580<br>71653581                             |
|                                                                                                                                                                                                                                                                                             | <b>Only for Micropilot FMR43:</b><br>Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                                                                                                    | 71174959 <sup>1)</sup>                           |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.



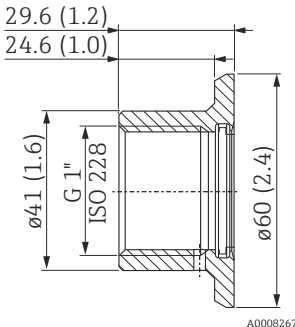
See the following table for seals that can be ordered.

| Seals, ø 21.89 x 2.62 mm (0.86 x 0.10 in)                                                     |                                                                                                                                                                   | Order number                           |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <br>A0021901 | <b>Standard seal</b>                                                                                                                                              |                                        |
|                                                                                               | Silicone O-ring<br>Material: VMQ 70<br>Complies with FDA, EC1935, GB4806                                                                                          | 52014473 <sup>1)</sup><br>(5 pieces)   |
|                                                                                               | <b>Alternative seals</b>                                                                                                                                          |                                        |
|                                                                                               | Material: EPDM 70<br>Complies with FDA, USP Class VI, EC1935, GB4806<br><br>EHEDG certified                                                                       | 71140670 <sup>2)</sup><br>(3 pieces)   |
|                                                                                               | Material: FFKM Kalrez 6221<br>Complies with FDA, USP Class VI                                                                                                     | 71167883 <sup>1)</sup>                 |
|                                                                                               | Material: FKM                                                                                                                                                     | 71172153 <sup>1)</sup><br>(5 pieces)   |
|                                                                                               | Material: FKM FEP coated<br>Complies with FDA, USP Class VI, EC1935                                                                                               | 71167747 <sup>1)</sup>                 |
|                                                                                               | Material: Silicone VMQ 3-80<br>Complies with FDA, USP Class VI, EC1935, GB4806                                                                                    | 71086100<br>(3 pieces)                 |
|                                                                                               | <b>Only for Micropilot FMR43:</b><br>Material: EPDM 70<br>Complies with FDA, USP Class VI, EC1935<br><br>Material: FKM<br>Complies with FDA, USP Class VI, EC1935 | 71655741<br>(5 pieces)<br><br>71655742 |

1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)



## G 1, d=60 with flange for flush mounting

| Dimensions in mm (in)                                                                                                                                                                                                                                                                           | Version                                                                                                                                                                                                                                                                                                                                                                                                                                             | Order number                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>■ max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>■ max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>■ Without inspection certificate</li> <li>■ With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p>                                                                                                                                                                          | 52001051<br>52011896               |
|                                                                                                                                                                                                                                                                                                 | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                                                                                                                                                    | 71166879 <sup>1)</sup>             |
|                                                                                                                                                                                                                                                                                                 | Blind plug for sealing the weld-in adapter <ul style="list-style-type: none"> <li>■ Without inspection certificate</li> <li>■ With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p>                                                                                                                                                                 | 71173810<br>71167291 <sup>1)</sup> |
|                                                                                                                                                                                                                                                                                                 | <b>Only for Micropilot FMR43:</b> <ul style="list-style-type: none"> <li>■ Without inspection certificate</li> <li>■ With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p> <p> Seal not included in the scope of delivery.</p> | 71653587<br>71653588               |
|                                                                                                                                                                                                                                                                                                 | <b>Only for Micropilot FMR43:</b><br>Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                                                                                                               | 71166879 <sup>1)</sup>             |
|                                                                                                                                                                                                                                                                                                 | <b>Only for Micropilot FMR43:</b><br>Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)                                                                                                                                                                                                                                                                                | On request                         |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

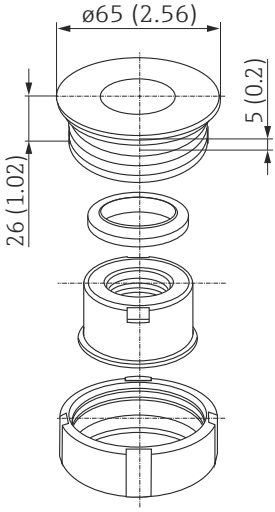


See the following table for seals that can be ordered.

| Seals, ø 28.17 x 3.53 mm (1.11 x 0.14 in)                                                     |                                                                                                                                                                       | Order number                           |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <br>A0021901 | <b>Standard seal</b>                                                                                                                                                  |                                        |
|                                                                                               | Silicone O-ring<br>Material: VMQ 70<br>Complies with FDA, EC1935, GB4806                                                                                              | 52014472 <sup>1)</sup><br>(5 pieces)   |
|                                                                                               | <b>Alternative seals</b>                                                                                                                                              |                                        |
|                                                                                               | Material: EPDM 70<br>Complies with FDA, USP Class VI, EC1935<br><br>EHEDG certified                                                                                   | 71140668 <sup>1)</sup><br>(3 pieces)   |
|                                                                                               | Material: FKM 75                                                                                                                                                      | 71182264 <sup>1)</sup><br>(5 pieces)   |
|                                                                                               | Material: FFKM Kalrez 4079                                                                                                                                            | 71166292 <sup>1)</sup>                 |
|                                                                                               | Material: Silicone VMQ 3-80<br>Complies with FDA, USP Class VI, EC1935                                                                                                | 71086102<br>(3 pieces)                 |
|                                                                                               | <b>Only for Micropilot FMR43:</b><br><br>Material: EPDM 70<br>Complies with FDA, USP Class VI, EC1935<br><br>Material: FKM<br>Complies with FDA, USP Class VI, EC1935 | 71655743<br>(5 pieces)<br><br>71655744 |

1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

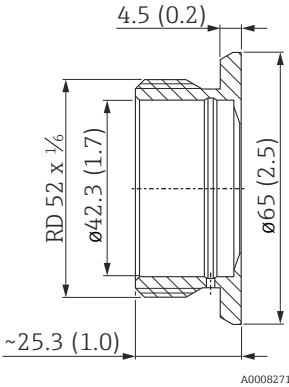
## G1 sensor adjustable

| Dimensions in mm (in)                                                                                                                                                                                                                                                                                           | Version                                                                                                                                                                                                                                                                                                                  | Order number                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>■ max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>■ max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> <p>A0008272</p> | <ul style="list-style-type: none"> <li>■ Without inspection certificate</li> <li>■ With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>Ra \leq 0.8 \mu\text{m}</math> (31.5 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p> | 52001221<br>52011898                 |
|                                                                                                                                                                                                                                                                                                                 | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                         | 71181945 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                                                 | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): $Ra \leq 0.76 \mu\text{m}$ (29.9 $\mu\text{in}$ )                                                                                                                                                                | 71166366 <sup>1)</sup>               |
| Seals, $\varnothing 29 \times 36 \times 3.7 \text{ mm}$ (1.14 x 1.42 x 0.15 in)                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                          | Order number                         |
|  <p>A0021901</p>                                                                                                                                                                                                             | <b>Standard seal</b>                                                                                                                                                                                                                                                                                                     |                                      |
|                                                                                                                                                                                                                                                                                                                 | Silicone profile gasket<br>Material: VMQ 60<br>Complies with FDA, EC1935                                                                                                                                                                                                                                                 | 52014424 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                                                 | <b>Alternative seals</b>                                                                                                                                                                                                                                                                                                 |                                      |
|                                                                                                                                                                                                                                                                                                                 | Material: EPDM 70                                                                                                                                                                                                                                                                                                        | 71168375 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                                                 | Material: VMQ 60<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                                                              | 71075662<br>(5 pieces)               |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal

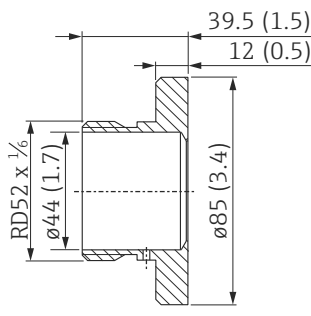
## RD52 sensor adjustable

| Dimensions in mm (in)                                                                                                                                                                                                                                                                           | Version                                                                                                                                                                                                                                                                                 | Order number                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>■ max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>■ max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>■ Without inspection certificate</li> <li>■ With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.8 \mu\text{m}</math> (31.5 <math>\mu\text{in}</math>)</p> | 52001047<br>52006909                 |
|                                                                                                                                                                                                                                                                                                 | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                        | 71181945 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                                 | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 $\mu\text{in}$ )                                                                                                                              | 71166366 <sup>1)</sup>               |
| Seals, Ø 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in)                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                         | Order number                         |
|                                                                                                                                                                                                              | <b>Standard seal</b>                                                                                                                                                                                                                                                                    |                                      |
|                                                                                                                                                                                                                                                                                                 | Silicone profile gasket<br>Material: VMQ 60<br>Complies with FDA, EC1935                                                                                                                                                                                                                | 52014424 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                                 | The seal can be easily replaced with this version.                                                                                                                                                                                                                                      |                                      |
|                                                                                                                                                                                                                                                                                                 | <b>Alternative seals</b>                                                                                                                                                                                                                                                                |                                      |
|                                                                                                                                                                                                                                                                                                 | Material: EPDM 70                                                                                                                                                                                                                                                                       | 71168375 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                                 | Material: VMQ 60<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                             | 71075662<br>(5 pieces)               |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

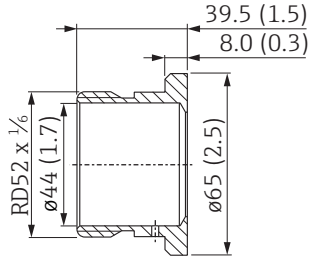
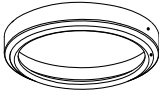
2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

## UNI D85

| Dimensions in mm (in)                                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                                                                               | Order number                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>A0009985</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 16 bar (232 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)</p> <p>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p>                                                             | <p>52006262</p> <p>52010173</p>      |
|                                                                                                                                                                                                                                                       | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                                      | 71114210                             |
|                                                                                                                                                                                                                                                       | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)                                                                                                                                                                                                       | 71580894                             |
|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                       |                                      |
| Seals, backup ring                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                       | Order number                         |
|  <p>A0021901</p>                                                                                                                                                   | <b>Standard seal ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)</b>                                                                                                                                                                                                                                                                     |                                      |
|                                                                                                                                                                                                                                                       | Silicone profile gasket<br>Material: SI 60<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                                                 | 52023572 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                       | <b>Alternative seal ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)</b>                                                                                                                                                                                                                                                                  |                                      |
|                                                                                                                                                                                                                                                       | Profile gasket<br>Material: EPDM 70<br>Complies with FDA, USP Class VI                                                                                                                                                                                                                                                                | 71100719<br>(5 pieces)               |
|  <p>A0042001</p>                                                                                                                                                   | <b>O-ring with backup ring</b>                                                                                                                                                                                                                                                                                                        |                                      |
|                                                                                                                                                                                                                                                       | <p>With inspection certificate EN10204-3.1 material</p> <p>Backup ring:<br/>Dimensions: ø 38.2 x 43.6 x 5.6 mm<br/>(1.5 x 1.72 x 0.22 in)<br/>Material: AISI 316L (1.4404)</p> <p>O-ring:<br/>Dimensions: ø 36 x 2.5 mm (1.42 x 0.1 in)<br/>Material: EPDM 70 Shore A<br/>Complies with FDA, USP, Class VI</p> <p>EHEDG certified</p> | 71431380                             |

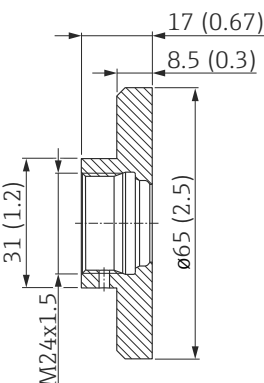
1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

## UNI D65

| Dimensions in mm (in)                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                                                                        | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 16 bar (232 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p>                                                         | 214880-0002<br>52010174              |
|                                                                                                                                                                                                                                       | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                               | 71114210                             |
|                                                                                                                                                                                                                                       | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)                                                                                                                                                                                                | 71580894                             |
|                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                |                                      |
| Seals, backup ring                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                | Order number                         |
|                                                                                                                                                     | <b>Standard seal</b> Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                                                              |                                      |
|                                                                                                                                                                                                                                       | Silicone profile gasket<br>Material: SI 60<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                                          | 52023572 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                       | <b>Alternative seal</b> Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                                                           |                                      |
|                                                                                                                                                                                                                                       | Profile gasket<br>Material: EPDM 70<br>Complies with FDA, USP Class VI                                                                                                                                                                                                                                                         | 71100719<br>(5 pieces)               |
|                                                                                                                                                    | <b>O-ring with backup ring</b>                                                                                                                                                                                                                                                                                                 |                                      |
|                                                                                                                                                                                                                                       | <p>With inspection certificate EN10204-3.1 material<br/>Backup ring:<br/>Dimensions: Ø 38.2 x 43.6 x 5.6 mm (1.5 x 1.72 x 0.22 in)<br/>Material: AISI 316L (1.4404)</p> <p>O-ring:<br/>Dimensions: Ø 36 x 2.5 mm (1.42 x 0.1 in)<br/>Material: EPDM 70 Shore A<br/>Complies with FDA, USP, Class VI</p> <p>EHEDG certified</p> | 71431380                             |

1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

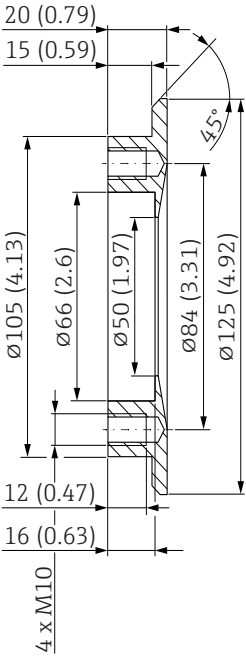
## M24 D65

| Dimensions in mm (in)                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Order number                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p>                                                                                                                                                                                       | <p>71041381<br/>71041383</p>                                |
|                                                                                                                                                                                                                                       | <p>Blind plug for sealing the weld-in adapter<br/>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p>                                                                                                                                                                                                                                                                                                                     | 71171418 <sup>1)</sup>                                      |
|                                                                                                                                                                                                                                       | <p><b>Only for Micropilot FMR43, FMR63B:</b></p> <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p> <p> Seal not included in the scope of delivery.</p> | <p>71653537<br/>71653541</p>                                |
|                                                                                                                                                                                                                                       | <p><b>Only for Micropilot FMR43, FMR63B:</b><br/>Blind plug for sealing the weld-in adapter<br/>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p>                                                                                                                                                                                                                                                                       | On request                                                  |
| Seal ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Order number                                                |
|                                                                                                                                                    | <b>Standard seal</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                             |
|                                                                                                                                                                                                                                       | <p>O-ring<br/>Material: EPDM 70<br/>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHEDG certified</p>                                                                                                                                                                                                                                                                                                                                               | <p>52024267<sup>2)</sup><br/>(5 pieces)</p>                 |
|                                                                                                                                                                                                                                       | <p><b>Only for Micropilot FMR43, FMR63B:</b><br/>Material: EPDM 70</p> <p>Material: FKM</p> <p><b>Only for Micropilot FMR63B:</b><br/>Material: FFKM</p>                                                                                                                                                                                                                                                                                                     | <p>71653949<br/>(5 pieces)<br/>71337274</p> <p>71567760</p> |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

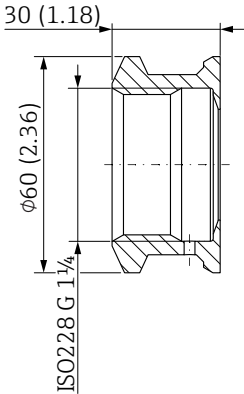
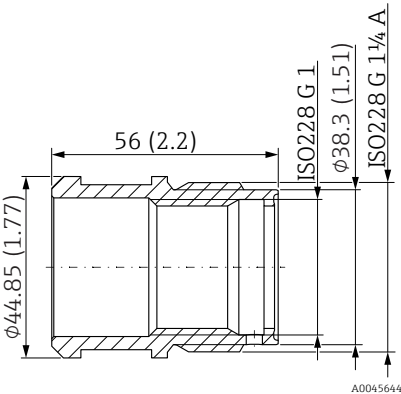
**DRD DN50 (65 mm (2.6 in))  
for flush mounting of devices  
with DRD flange**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                                                                                                                                               | Version                                                                                                                                                                                                                                  | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p data-bbox="774 969 826 981">A0008263</p> <p data-bbox="518 1008 813 1059">Pressure and temperature range<br/>of the adapter</p> <ul data-bbox="518 1059 758 1164" style="list-style-type: none"> <li>■ max. 25 bar (362 psi) /<br/>max. 150 °C (302 °F)</li> <li>■ max. 40 bar (580 psi) /<br/>max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>■ Without inspection certificate</li> <li>■ With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> | 52002041<br>52011899                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Material: AISI 304 (1.4301)<br/>Roughness (process side): Ra ≤ 0.8 µm (31.5 µin)</p>                                                                                                                                                  | 916743-0000                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Blind plug for sealing the weld-in adapter<br/>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p>                                                                                                 | 71181450 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Welding dummy for welding the weld-in adapter<br/>Material: Brass</p>                                                                                                                                                                 | 71114209                             |
| Seals ø 50 x 65 x 1 mm (1.97 x 2.56 x 0.04 in)                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                          | Order number                         |
|  <p data-bbox="774 1373 826 1384">A0021901</p>                                                                                                                                                                                                                                                                                   | <b>Standard seal</b>                                                                                                                                                                                                                     |                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Flat seal<br/>Material: PTFE<br/>Complies with FDA, EC1935</p>                                                                                                                                                                        | 52024228 <sup>2)</sup><br>(5 pieces) |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

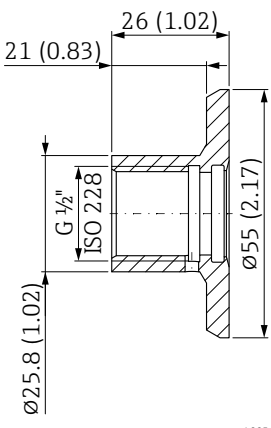
2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

## G 1¼ with G 1 thread adapter

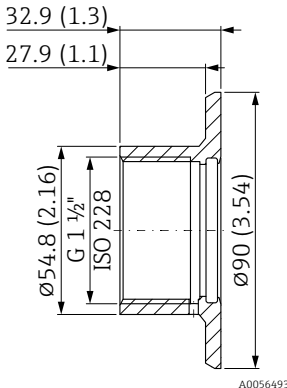
| Dimensions in mm (in)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Version                                                                                                                                                                                                                                        | Order number                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
|  <p>30 (1.18)</p> <p>60 (2.36)</p> <p>ISO228 G 1¼</p> <p>Weld-in adapter G 1¼</p> <p>A0045643</p>  <p>56 (2.2)</p> <p>44.85 (1.77)</p> <p>ISO228 G 1</p> <p>38.3 (1.51)</p> <p>ISO228 G 1¼</p> <p>Threaded sleeve</p> <p>A0045644</p> <p>Pressure and temperature range</p> <ul style="list-style-type: none"> <li>max. 6 bar (87 psi) / -20 °C to +80 °C (-4 °F to +176 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate</li> </ul> <p>EN10204-3.1 material</p> <p>Material: AISI 316L (1.4404)</p> <p>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> | <p>-</p> <p>71444432</p>                       |
| Seals, ø 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                | Order number                                   |
|  <p>A0021901</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Standard seal</b>                                                                                                                                                                                                                           |                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>Silicone profile gasket</p> <p>Material: VMQ 60</p> <p>Complies with FDA, USP Class VI, EC1935</p> <p>EHEDG certified</p>                                                                                                                   | <p>71075662<sup>1)</sup></p> <p>(5 pieces)</p> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Alternative seal</b>                                                                                                                                                                                                                        |                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>Silicone profile gasket</p> <p>Material: VMQ 60</p> <p>Complies with FDA, EC1935</p> <p>EHEDG certified</p>                                                                                                                                 | <p>52014424<sup>1)</sup></p> <p>(5 pieces)</p> |

1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

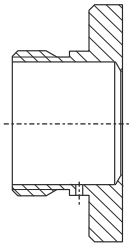
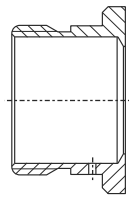
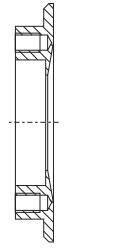
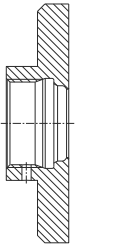
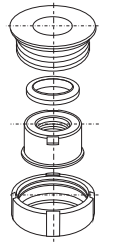
**G ½, d=55 with flange for  
flush mounting -  
Only for Micropilot**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                                                                                                            | Order number                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 (29.9)</p> <p> Seal not included in the scope of delivery.</p> | <p>71653545<br/>71653547</p> |
|                                                                                                                                                                                                                                                                                             | <p>Welding dummy for welding the weld-in adapter<br/>Material: Brass</p>                                                                                                                                                                                                                                                                                           | On request                   |
|                                                                                                                                                                                                                                                                                             | <p>Blind plug for sealing the weld-in adapter<br/>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p>                                                                                                                                                                                                                           | On request                   |
| Seal ø 17.2 x 2.62 mm (0.68 x 0.1 in)                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                    | Order number                 |
|                                                                                                                                                                                                          | <p>O-ring<br/>Material: EPDM<br/>Complies with FDA, USP Class VI, EC1935</p>                                                                                                                                                                                                                                                                                       | 71655736<br>(5 pieces)       |
|                                                                                                                                                                                                                                                                                             | <p>O-ring<br/>Material: FKM<br/>Complies with FDA, USP Class VI, EC1935</p>                                                                                                                                                                                                                                                                                        | 71655740                     |

**G 1½, d=90 with flange for  
flush mounting -  
Only for Micropilot**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                                                                                                            | Order number           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 (29.9)</p> <p> Seal not included in the scope of delivery.</p> | 71653592<br>71653594   |
|                                                                                                                                                                                                                                                                                             | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                                                                   | On request             |
|                                                                                                                                                                                                                                                                                             | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)                                                                                                                                                                                                                                    | On request             |
| Seal, ø 40.87 x 3.53 mm (1.61 x 0.14 in)                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                    | Order number           |
|                                                                                                                                                                                                          | O-ring<br>Material: EPDM<br>Complies with USP Class VI                                                                                                                                                                                                                                                                                                             | 71655745<br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | O-ring<br>Material: FKM<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                                                                                                 | 71655746               |

## Weld-in adapter - Pressure overview

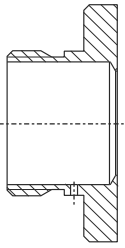
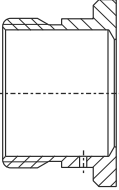
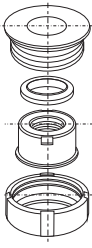
|                                                                           |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>[Part 1]</b><br><br><b>Weld-in adapter</b><br><b>Pressure overview</b> |  |  |  |  |  |
|                                                                           | A0008245                                                                          | A0017639                                                                          | A0008254                                                                           | A0008552                                                                            | A0008253                                                                            |
|                                                                           | <b>UNI D85</b>                                                                    | <b>UNI D65</b>                                                                    | <b>DRD DN50<br/>(65 mm (2.56 in))<br/>(weld-in flange)</b>                         | <b>M24 D65</b>                                                                      | <b>G 1<br/>adjustable</b>                                                           |
| Material                                                                  | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)<br>304 (1.4301)                                                      | 316L (1.4435)                                                                       | 316L (1.4435)                                                                       |
| Roughness $\mu\text{m}$ ( $\mu\text{in}$ ) process side                   | $\leq 0.76$ (29.9)                                                                | $\leq 0.76$ (29.9)                                                                | $\leq 0.76$ (29.9)                                                                 | $\leq 0.76$ (29.9)                                                                  | $\leq 0.8$ (31.5)                                                                   |
| Order number weld-in adapter                                              | 52006262                                                                          | 214880-0002                                                                       | 52002041/<br>916743-0000                                                           | 71041381                                                                            | 52001221                                                                            |
| Order number weld-in adapter with inspection certificate <sup>1)</sup>    | 52010173                                                                          | 52010174                                                                          | 52011899/ –                                                                        | 71041383                                                                            | 52011898                                                                            |
| Order number replacement seal (5 pieces) <sup>2)</sup>                    | Silicone<br>profile gasket<br>52023572                                            | Silicone<br>profile gasket<br>52023572                                            | PTFE<br>flat seal<br>52024228                                                      | EPDM<br>O-ring<br>52024267                                                          | Silicone<br>profile gasket<br>52014424)                                             |
| Order number welding dummy                                                | 71114210                                                                          | 71114210                                                                          | 71114209                                                                           | –                                                                                   | 71181945                                                                            |
| Order number blind plug <sup>3)</sup>                                     | 71181340                                                                          | 71181340                                                                          | 71181450                                                                           | 71171418                                                                            | 71196853                                                                            |
| <b>Measuring instrument</b>                                               | <b>Suitable for process connection<br/>Option <sup>4)</sup></b>                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| <b>Cerabar</b>                                                            |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| PMP23                                                                     | 52J                                                                               | 52J                                                                               | –                                                                                  | X2J/X3J                                                                             | –                                                                                   |
| <b>Ceraphant</b>                                                          |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| PTP33B                                                                    | –                                                                                 | –                                                                                 | –                                                                                  | X2J/X3J                                                                             | –                                                                                   |
| <b>Cerabar</b>                                                            |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| PMP43                                                                     | 50J/52J                                                                           | 50J/52J                                                                           | –                                                                                  | –                                                                                   |                                                                                     |
| <b>Cerabar M</b>                                                          |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| PMC51                                                                     | UNJ/UPJ                                                                           | UNJ/UPJ                                                                           | TIJ                                                                                | –                                                                                   | –                                                                                   |
| PMP51                                                                     | –                                                                                 | –                                                                                 | TIJ                                                                                | –                                                                                   | –                                                                                   |
| PMP55                                                                     | UPJ                                                                               | UPJ                                                                               | TIJ                                                                                | –                                                                                   | –                                                                                   |

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

3) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

4) The option can be selected in the Product Configurator via the order feature "Process connection".

|                                                                                     |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>[Part 1 continued]</b><br><br><b>Weld-in adapter</b><br><b>Pressure overview</b> |  |  |  |  |  |
|                                                                                     | A0008245                                                                          | A0017639                                                                          | A0008254                                                                          | A0008552                                                                            | A0008253                                                                            |
|                                                                                     | <b>UNI D85</b>                                                                    | <b>UNI D65</b>                                                                    | <b>DRD DN50<br/>(65 mm (2.56 in))<br/>(weld-in flange)</b>                        | <b>M24 D65</b>                                                                      | <b>G 1<br/>adjustable</b>                                                           |
| Order number<br>weld-in adapter                                                     | 52006262                                                                          | 214880-0002                                                                       | 52002041/<br>916743-0000                                                          | 71041381                                                                            | 52001221                                                                            |
| Order number<br>Weld-in adapter with inspection<br>certificate <sup>1)</sup>        | 52010173                                                                          | 52010174                                                                          | 52011899/ –                                                                       | 71041383                                                                            | 52011898                                                                            |
| <b>Measuring instrument</b>                                                         | <b>Suitable for process connection</b><br>Option <sup>2)</sup>                    |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| <b>Deltapilot M</b>                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| FMB50                                                                               | UNJ/UPJ                                                                           | UNJ/UPJ                                                                           | TIJ                                                                               | –                                                                                   | –                                                                                   |
| <b>Deltapilot S</b>                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| FMB70                                                                               | 00/01                                                                             | 00/01                                                                             | TK                                                                                | –                                                                                   | –                                                                                   |
| <b>Deltabar S</b>                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| FMD78                                                                               | 00/UT                                                                             | 00/UT                                                                             | TK                                                                                | –                                                                                   | –                                                                                   |
| <b>Deltabar</b>                                                                     |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| FMD71                                                                               | UNJ/UPJ                                                                           | UNJ/UPJ                                                                           | TIJ                                                                               | –                                                                                   | –                                                                                   |
| FMD72                                                                               | –                                                                                 | –                                                                                 | TIJ                                                                               | –                                                                                   | –                                                                                   |
| <b>Measuring instrument</b>                                                         | <b>As "Accessory enclosed"</b><br>Option <sup>3)</sup>                            |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| <b>Ceraphant</b>                                                                    |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| PTP33B                                                                              | QP/QR                                                                             | QL/QM                                                                             | –                                                                                 | PM/PN                                                                               | –                                                                                   |
| <b>Cerabar</b>                                                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| PMP23                                                                               | QP/QR                                                                             | QL/QM                                                                             | –                                                                                 | PM/PN                                                                               | –                                                                                   |
| PMP43                                                                               | QQ                                                                                | QP                                                                                | –                                                                                 | –                                                                                   | PJ                                                                                  |
| <b>Cerabar M</b>                                                                    |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| PMC51                                                                               | Q2/Q3                                                                             | QT/QU                                                                             | QP/QR                                                                             | –                                                                                   | –                                                                                   |
| PMP51                                                                               | –                                                                                 | –                                                                                 | QP/QR                                                                             | –                                                                                   | –                                                                                   |
| PMP55                                                                               | –                                                                                 | –                                                                                 | QP/QR                                                                             | –                                                                                   | –                                                                                   |
| <b>Deltapilot M</b>                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| FMB50                                                                               | Q2/Q3                                                                             | QT/QU                                                                             | QP/QR                                                                             | –                                                                                   | –                                                                                   |

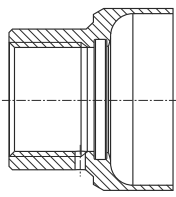
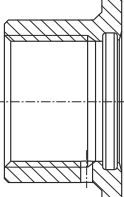
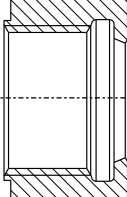
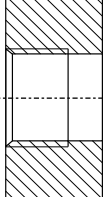
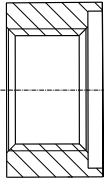
1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) The option can be selected in the Product Configurator via the order feature "Process connection".

3) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

|                                                                              |                                                                       |                                  |                                |                                                |                              |                          |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------|--------------------------------|------------------------------------------------|------------------------------|--------------------------|
| <b>[Part 2]</b><br><br><b>Weld-in adapter</b><br><b>Pressure overview</b>    |                                                                       |                                  |                                |                                                |                              |                          |
|                                                                              | <b>G 1, d=53<br/>pipe-mounting</b>                                    | <b>G 1, d=60<br/>with flange</b> | <b>G 1 1/2<br/>flush mount</b> | <b>G 1<br/>flush mount<br/>(sealing taper)</b> | <b>G 1/2<br/>flush mount</b> | <b>G 1/2<br/>DIN3852</b> |
| Material                                                                     | 316L (1.4435)                                                         | 316L (1.4435)                    | 316L (1.4435)                  | 316L (1.4404)                                  | 316L (1.4435)                | 316L (1.4404)            |
| Roughness $\mu\text{m}$ ( $\mu\text{in}$ ) process side                      | $\leq 0.76$ (29.9)                                                    | $\leq 0.76$ (29.9)               | $\leq 0.8$ (31.5)              | $\leq 0.8$ (31.5)                              | $\leq 0.8$ (31.5)            | $\leq 0.8$ (31.5)        |
| Order number<br>weld-in adapter                                              | 71258358                                                              | 52001051                         | 52024469                       | 52005087                                       | 52002643                     | 71389241                 |
| Order number<br>weld-in adapter with<br>inspection certificate <sup>1)</sup> | 71093129                                                              | 52011896                         | 52024470                       | 52010171                                       | 52010172                     | 71389243                 |
| Order number<br>replacement seal (5 pieces) <sup>2)</sup>                    | Silicone O-ring<br>52014472                                           | Silicone O-ring<br>52014472      | –                              | –                                              | –                            | –                        |
| Order number<br>welding dummy                                                | 71166879                                                              | 71166879                         | 52024471                       | 52005272                                       | 52005082                     | 52005082                 |
| Order number blind plug                                                      | 71173810                                                              | 71173810                         | –                              | 71171731                                       | –                            | –                        |
| Order number blind plug with<br>inspection certificate <sup>3)</sup>         | 71167291                                                              | 71167291                         | –                              | –                                              | –                            | –                        |
| <b>Measuring instrument</b>                                                  | <b>Suitable for process connection</b><br><b>Option <sup>4)</sup></b> |                                  |                                |                                                |                              |                          |
| <b>Ceraphant</b>                                                             |                                                                       |                                  |                                |                                                |                              |                          |
| PTP31                                                                        | –                                                                     | –                                | –                              | –                                              | AG                           | –                        |
| PTP35                                                                        | BB                                                                    | BB                               | –                              | BA                                             | –                            | –                        |
| PTP31B                                                                       | –                                                                     | –                                | –                              | –                                              | WUJ                          | WJJ                      |
| PTP33B                                                                       | WSJ                                                                   | WSJ                              | –                              | WQJ                                            | –                            | –                        |
| <b>Cerabar</b>                                                               |                                                                       |                                  |                                |                                                |                              |                          |
| PMP11                                                                        | –                                                                     | –                                | –                              | –                                              | –                            | WJJ                      |
| PMP135                                                                       | N                                                                     | N                                | –                              | M                                              | –                            | –                        |
| PMP21                                                                        | –                                                                     | –                                | –                              | –                                              | WUJ                          | WJJ                      |
| PMP23                                                                        | WSJ                                                                   | WSJ                              | –                              | WQJ                                            | –                            | –                        |
| PMP43                                                                        | WSJ                                                                   | WSJ                              | WNJ                            | WQJ                                            | WUJ                          | WJJ                      |
| PMP51B                                                                       | –                                                                     | –                                | WNJ                            | –                                              | –                            | WJJ                      |
| PMP71B                                                                       | –                                                                     | –                                | WNJ                            | –                                              | –                            | WJJ                      |
| PMC51B                                                                       | –                                                                     | –                                | WNJ                            | –                                              | –                            | –                        |
| PMC71B                                                                       | –                                                                     | –                                | WNJ                            | –                                              | –                            | –                        |

- 1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.
- 2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)
- 3) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.
- 4) The option can be selected in the Product Configurator via the order feature "Process connection".

|                                                                                     |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>[Part 2 continued]</b><br><br><b>Weld-in adapter</b><br><b>Pressure overview</b> |  |  |  |  |  |  |
|                                                                                     | <b>G 1, d=53<br/>pipe-mounting</b>                                                | <b>G 1, d=60<br/>with flange</b>                                                  | <b>G 1½<br/>flush mount</b>                                                       | <b>G 1<br/>flush mount<br/>(sealing taper)</b>                                     | <b>G ½<br/>flush mount</b>                                                          | <b>G ½<br/>DIN3852</b>                                                              |
| Order number<br>weld-in adapter                                                     | 71258358                                                                          | 52001051                                                                          | 52024469                                                                          | 52005087                                                                           | 52002643                                                                            | 71389241                                                                            |
| Order number<br>weld-in adapter with<br>inspection certificate <sup>1)</sup>        | 71093129                                                                          | 52011896                                                                          | 52024470                                                                          | 52010171                                                                           | 52010172                                                                            | 71389243                                                                            |
| <b>Measuring instrument</b>                                                         | <b>Suitable for process connection</b><br>Option <sup>2)</sup>                    |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| <b>Cerabar M</b>                                                                    |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| PMC51                                                                               | –                                                                                 | –                                                                                 | GVJ                                                                               | –                                                                                  | –                                                                                   | –                                                                                   |
| PMP51                                                                               | –                                                                                 | GZJ                                                                               | GVJ                                                                               | GXJ                                                                                | GOJ/GCJ                                                                             | GRJ/GRC                                                                             |
| PMP55                                                                               | –                                                                                 | –                                                                                 | GVJ <sup>3)</sup>                                                                 | –                                                                                  | –                                                                                   | –                                                                                   |
| <b>Cerabar S</b>                                                                    |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| PMC71                                                                               | –                                                                                 | –                                                                                 | 1G/1H/1J                                                                          | –                                                                                  | –                                                                                   | –                                                                                   |
| PMP71                                                                               | –                                                                                 | –                                                                                 | 1G/1H                                                                             | –                                                                                  | –                                                                                   | 1A/1B                                                                               |
| PMP75                                                                               | –                                                                                 | –                                                                                 | 1G/1H                                                                             | –                                                                                  | –                                                                                   | –                                                                                   |
| <b>Deltapilot M</b>                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMB50                                                                               | –                                                                                 | –                                                                                 | GGJ/GGC                                                                           | –                                                                                  | –                                                                                   | –                                                                                   |
| FMB51                                                                               | –                                                                                 | –                                                                                 | GGJ/GGC                                                                           | –                                                                                  | –                                                                                   | –                                                                                   |
| FMB52                                                                               | –                                                                                 | –                                                                                 | GGJ/GGC                                                                           | –                                                                                  | –                                                                                   | –                                                                                   |
| <b>Deltapilot S</b>                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMB70                                                                               | –                                                                                 | –                                                                                 | 1G/1H                                                                             | –                                                                                  | –                                                                                   | –                                                                                   |
| <b>Deltabar S</b>                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMD78                                                                               | –                                                                                 | –                                                                                 | 1G/1H                                                                             | –                                                                                  | –                                                                                   | –                                                                                   |
| <b>Deltabar</b>                                                                     |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMD71                                                                               | –                                                                                 | –                                                                                 | GVJ                                                                               | –                                                                                  | –                                                                                   | –                                                                                   |
| FMD72                                                                               | –                                                                                 | –                                                                                 | GVJ                                                                               | –                                                                                  | –                                                                                   | –                                                                                   |

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) The option can be selected in the Product Configurator via the order feature "Process connection".

3) Flush mounting is not possible with this combination.

|                                                                                     |                                                        |                                  |                             |                                                |                            |                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------|-----------------------------|------------------------------------------------|----------------------------|------------------------|
| <b>[Part 2 continued]</b><br><br><b>Weld-in adapter</b><br><b>Pressure overview</b> |                                                        |                                  |                             |                                                |                            |                        |
|                                                                                     | A0011924                                               | A0008248                         | A0008247                    | A0008249                                       | A0008250                   | A0037352               |
|                                                                                     | <b>G 1, d=53<br/>pipe-mounting</b>                     | <b>G 1, d=60<br/>with flange</b> | <b>G 1½<br/>flush mount</b> | <b>G 1<br/>flush mount<br/>(sealing taper)</b> | <b>G ½<br/>flush mount</b> | <b>G ½<br/>DIN3852</b> |
| <b>Measuring instrument</b>                                                         | <b>As "Accessory enclosed"</b><br>Option <sup>1)</sup> |                                  |                             |                                                |                            |                        |
| <b>Ceraphant</b>                                                                    |                                                        |                                  |                             |                                                |                            |                        |
| PTP31B                                                                              | –                                                      | –                                | –                           | –                                              | QA/QB                      | –                      |
| PTP33B                                                                              | –                                                      | QJ/QK                            | –                           | QE/QF <sup>2)</sup>                            | –                          | –                      |
| <b>Cerabar</b>                                                                      |                                                        |                                  |                             |                                                |                            |                        |
| PMP21                                                                               | –                                                      | –                                | –                           | –                                              | QA/QB                      | QM/QN                  |
| PMP23                                                                               | –                                                      | QJ/QK                            | –                           | QE/QF <sup>2)</sup>                            | –                          | –                      |
| PMP43                                                                               | PH                                                     | PF                               | QG                          | QE                                             | QB                         | QB                     |
| PMC51                                                                               | –                                                      | –                                | QJ/QK                       | –                                              | –                          | –                      |
| PMP51                                                                               | –                                                      | –                                | QJ/QK                       | QE/QF <sup>2)</sup>                            | QA/QB                      | QM/QN                  |
| PMP55                                                                               | –                                                      | –                                | QJ/QK <sup>3)</sup>         | –                                              | –                          | –                      |
| PMP51B                                                                              | –                                                      | –                                | QJ                          | –                                              | –                          | –                      |
| PMP71B                                                                              | –                                                      | –                                | QJ                          | –                                              | –                          | –                      |
| PMC51B                                                                              | –                                                      | –                                | QJ                          | –                                              | –                          | –                      |
| PMC71B                                                                              | –                                                      | –                                | QJ                          | –                                              | –                          | –                      |
| <b>Deltapilot M</b>                                                                 |                                                        |                                  |                             |                                                |                            |                        |
| FMB50                                                                               | –                                                      | –                                | QJ/QK                       | –                                              | –                          | –                      |
| FMB51                                                                               | –                                                      | –                                | QJ/QK                       | –                                              | –                          | –                      |
| FMB52                                                                               | –                                                      | –                                | QJ/QK                       | –                                              | –                          | –                      |

- 1) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".
- 2) Only suitable for screwing in once (observe the information provided below on a leaking connection).
- 3) Flush mounting is not possible with this combination.

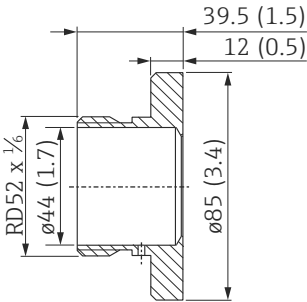
**NOTICE**
**Leaking connection**

Repeated screwing in of the process connection can cause damage to the weld-in adapter.  
The connection will not be leak-tight.

- Use sealing taper G 1 flush mount for screwing in only once.

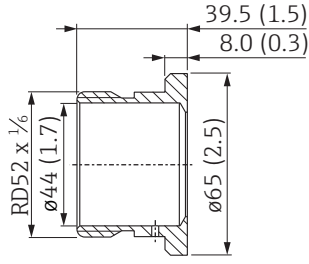
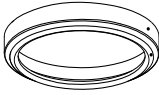
## Weld-in adapter and accessories - Pressure

UNI D85

| Dimensions in mm (in)                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                                                                                                                                                     | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 16 bar (232 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>Ra \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p>                                                                                       | 52006262<br>52010173                 |
|                                                                                                                                                                                                                                       | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                                                                                                            | 71114210                             |
|                                                                                                                                                                                                                                       | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): $Ra \leq 0.76 \mu\text{m}$ (29.9 $\mu\text{in}$ )                                                                                                                                                                                                                                                   | 71580894                             |
| Seals, backup ring                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                             | Order number                         |
|                                                                                                                                                    | <b>Standard seal <math>\varnothing 34 \times 41.5 \times 6.4 \text{ mm}</math> (1.34 x 1.63 x 0.25 in)</b>                                                                                                                                                                                                                                                                                                  |                                      |
|                                                                                                                                                                                                                                       | Silicone profile gasket<br>Material: SI 60<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                                                                                                                       | 52023572 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                       | <b>Alternative seal <math>\varnothing 34 \times 41.5 \times 6.4 \text{ mm}</math> (1.34 x 1.63 x 0.25 in)</b>                                                                                                                                                                                                                                                                                               |                                      |
|                                                                                                                                                                                                                                       | Profile gasket<br>Material: EPDM 70<br>Complies with FDA, USP Class VI                                                                                                                                                                                                                                                                                                                                      | 71100719<br>(5 pieces)               |
|                                                                                                                                                    | <b>O-ring with backup ring</b>                                                                                                                                                                                                                                                                                                                                                                              |                                      |
|                                                                                                                                                                                                                                       | <p>With inspection certificate EN10204-3.1 material<br/>Backup ring:<br/>Dimensions: <math>\varnothing 38.2 \times 43.6 \times 5.6 \text{ mm}</math> (1.5 x 1.72 x 0.22 in)<br/>Material: AISI 316L (1.4404)</p> <p>O-ring:<br/>Dimensions: <math>\varnothing 36 \times 2.5 \text{ mm}</math> (1.42 x 0.1 in)<br/>Material: EPDM 70 Shore A<br/>Complies with FDA, USP, Class VI</p> <p>EHEDG certified</p> | 71431380                             |

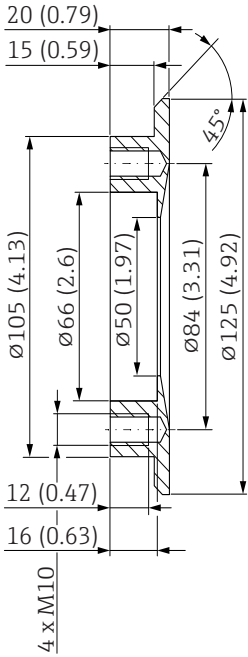
1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

## UNI D65

| Dimensions in mm (in)                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                                                                        | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 16 bar (232 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p>                                                         | 214880-0002<br>52010174              |
|                                                                                                                                                                                                                                       | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                               | 71114210                             |
|                                                                                                                                                                                                                                       | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)                                                                                                                                                                                                | 71580894                             |
| Seals                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                | Order number                         |
|                                                                                                                                                     | <b>Standard seal</b> Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                                                              |                                      |
|                                                                                                                                                                                                                                       | Silicone profile gasket<br>Material: SI 60<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                                          | 52023572 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                       | <b>Alternative seal</b> Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                                                           |                                      |
|                                                                                                                                                                                                                                       | Profile gasket<br>Material: EPDM 70<br>Complies with FDA, USP Class VI                                                                                                                                                                                                                                                         | 71100719<br>(5 pieces)               |
|                                                                                                                                                    | <b>O-ring with backup ring</b>                                                                                                                                                                                                                                                                                                 |                                      |
|                                                                                                                                                                                                                                       | <p>With inspection certificate EN10204-3.1 material<br/>Backup ring:<br/>Dimensions: Ø 38.2 x 43.6 x 5.6 mm (1.5 x 1.72 x 0.22 in)<br/>Material: AISI 316L (1.4404)</p> <p>O-ring:<br/>Dimensions: Ø 36 x 2.5 mm (1.42 x 0.1 in)<br/>Material: EPDM 70 Shore A<br/>Complies with FDA, USP, Class VI</p> <p>EHEDG certified</p> | 71431380                             |

1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

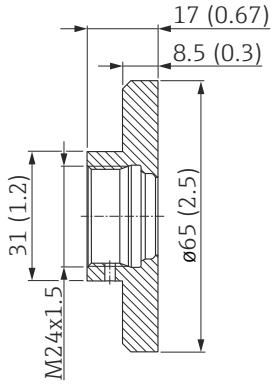
**DRD DN50 (65 mm (2.6 in))  
for flush mounting of devices  
with DRD flange**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                              | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p> | 52002041<br>52011899                 |
|                                                                                                                                                                                                                                                                                             | <p>Material: AISI 304 (1.4301)<br/>Roughness (process side): <math>R_a \leq 0.8 \mu\text{m}</math> (31.5 <math>\mu\text{in}</math>)</p>                                                                                                                                              | 916743-0000                          |
|                                                                                                                                                                                                                                                                                             | <p>Welding dummy for welding the weld-in adapter<br/>Material: Brass</p>                                                                                                                                                                                                             | 71114209                             |
|                                                                                                                                                                                                                                                                                             | <p>Blind plug for sealing the weld-in adapter<br/>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p>                                                                                             | 71181450 <sup>1)</sup>               |
| Seal, $\varnothing 50 \times 65 \times 1 \text{ mm}$ (1.97 x 2.56 x 0.04 in)                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                      | Order number                         |
|                                                                                                                                                                                                          | <b>Standard seal</b>                                                                                                                                                                                                                                                                 |                                      |
|                                                                                                                                                                                                                                                                                             | <p>Flat seal<br/>Material: PTFE<br/>Complies with FDA, EC1935</p>                                                                                                                                                                                                                    | 52024228 <sup>2)</sup><br>(5 pieces) |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

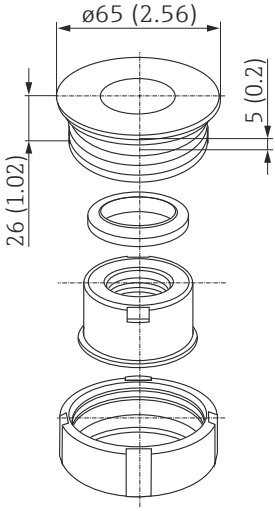
2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

## M24 D65

| Dimensions in mm (in)                                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                | Order number                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> </ul> <p>A0008551</p> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p> | <p>71041381<br/>71041383</p>                |
|                                                                                                                                                                                                                                                       | <p>Blind plug for sealing the weld-in adapter</p> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p>                                                                                                                            | <p>71171418<sup>1)</sup></p>                |
| Seal ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                        | Order number                                |
|  <p>A0021901</p>                                                                                                                                                    | <p><b>Standard seal</b></p>                                                                                                                                                                                                                                            | <p>52024267<sup>2)</sup><br/>(5 pieces)</p> |
|                                                                                                                                                                                                                                                       | <p>O-ring</p> <p>Material: EPDM 70</p> <p>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHEDG certified</p>                                                                                                                                                   |                                             |

- 1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.
- 2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

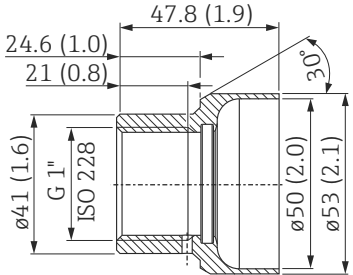
## G1 sensor adjustable

| Dimensions in mm (in)                                                                                                                                                                                                                                                                                           | Version                                                                                                                                                                                                                                                                                                                     | Order number                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>A0008272</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>■ max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>■ max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>■ Without inspection certificate</li> <li>■ With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)</p> <p>Roughness (process side): <math>Ra \leq 0.8 \mu\text{m}</math> (31.5 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p> | <p>52001221</p> <p>52011898</p>      |
|                                                                                                                                                                                                                                                                                                                 | <p>Welding dummy for welding the weld-in adapter</p> <p>Material: Brass</p>                                                                                                                                                                                                                                                 | 71181945 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                                                 | <p>Blind plug for sealing the weld-in adapter</p> <p>Material: AISI 316L (1.4435)</p> <p>Roughness (process side): <math>Ra \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p>                                                                                                                               | 71166366 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                             |                                      |
| Seals, ø 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in)                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                             | Order number                         |
|  <p>A0021901</p>                                                                                                                                                                                                             | <b>Standard seal</b>                                                                                                                                                                                                                                                                                                        |                                      |
|                                                                                                                                                                                                                                                                                                                 | <p>Silicone profile gasket</p> <p>Material: VMQ 60</p> <p>Complies with FDA, EC1935</p>                                                                                                                                                                                                                                     | 52014424 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                                                 | <b>Alternative seals</b>                                                                                                                                                                                                                                                                                                    |                                      |
|                                                                                                                                                                                                                                                                                                                 | <p>Material: EPDM 70</p>                                                                                                                                                                                                                                                                                                    | 71168375 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                                                 | <p>Material: VMQ 60</p> <p>Complies with FDA, USP Class VI, EC1935</p>                                                                                                                                                                                                                                                      | 71075662<br>(5 pieces)               |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal

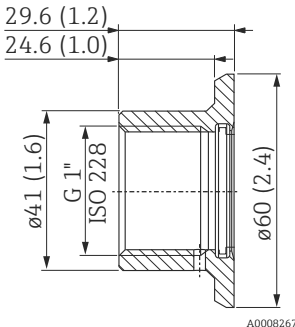
## G 1, d=53 pipe-mounting

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                                                                         | Order number                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p>          | <p>71258358<br/>71093129</p>              |
|                                                                                                                                                                                                                                                                                             | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                                | 71166879 <sup>1)</sup>                    |
|                                                                                                                                                                                                                                                                                             | Blind plug for sealing the weld-in adapter <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p> | <p>71173810<br/>71167291<sup>1)</sup></p> |
| Seals, $\varnothing 28.17 \times 3.53 \text{ mm}$ (1.11 x 0.14 in)                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                 | Order number                              |
|                                                                                                                                                                                                          | <b>Standard seal</b>                                                                                                                                                                                                                                                                                                            |                                           |
|                                                                                                                                                                                                                                                                                             | Silicone O-ring<br>Material: VMQ 70<br>Complies with FDA, EC1935, GB4806                                                                                                                                                                                                                                                        | 52014472 <sup>2)</sup><br>(5 pieces)      |
|                                                                                                                                                                                                                                                                                             | <b>Alternative seals</b>                                                                                                                                                                                                                                                                                                        |                                           |
|                                                                                                                                                                                                                                                                                             | Material: EPDM 70<br>Complies with FDA, USP Class VI, EC1935<br>EHEDG certified                                                                                                                                                                                                                                                 | 71140668 <sup>2)</sup><br>(3 pieces)      |
|                                                                                                                                                                                                                                                                                             | Material: FKM 75                                                                                                                                                                                                                                                                                                                | 71182264 <sup>1)</sup><br>(5 pieces)      |
|                                                                                                                                                                                                                                                                                             | Material: FFKM Kalrez 4079                                                                                                                                                                                                                                                                                                      | 71166292 <sup>1)</sup>                    |
|                                                                                                                                                                                                                                                                                             | Material: Silicone VMQ 3-80<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                                                          | 71086102<br>(3 pieces)                    |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

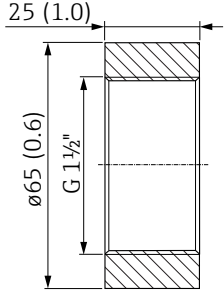
**G 1, d=60 with flange for flush mounting**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                         | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p>          | 52001051<br>52011896                 |
|                                                                                                                                                                                                                                                                                             | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                | 71166879 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                             | Blind plug for sealing the weld-in adapter <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> | 71173810<br>71167291 <sup>1)</sup>   |
| Seals, ø 28.17 x 3.53 mm (1.11 x 0.14 in)                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                 | Order number                         |
|                                                                                                                                                                                                          | <b>Standard seal</b>                                                                                                                                                                                                                                                            |                                      |
|                                                                                                                                                                                                                                                                                             | Silicone O-ring<br>Material: VMQ 70<br>Complies with FDA, EC1935, GB4806                                                                                                                                                                                                        | 52014472 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | <b>Alternative seals</b>                                                                                                                                                                                                                                                        |                                      |
|                                                                                                                                                                                                                                                                                             | Material: EPDM 70<br>Complies with FDA, USP Class VI, EC1935<br>EHEDG certified                                                                                                                                                                                                 | 71140668 <sup>2)</sup><br>(3 pieces) |
|                                                                                                                                                                                                                                                                                             | Material: FKM 75                                                                                                                                                                                                                                                                | 71182264 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | Material: FFKM Kalrez 4079                                                                                                                                                                                                                                                      | 71166292 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                             | Material: Silicone VMQ 3-80<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                          | 71086102<br>(3 pieces)               |

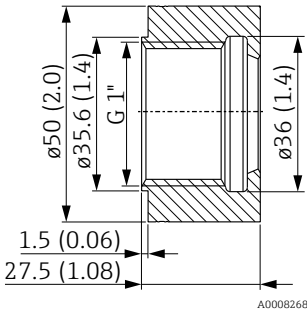
1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

**G 1½ flush mount**

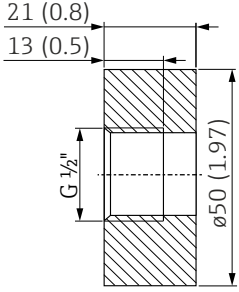
| Dimensions in mm (in)                                                               | Version                                                                                                                                                                                                                             | Order number         |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
|  | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.8 µm (31.5 µin)</p> | 52024469<br>52024470 |
|                                                                                     | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                    | 52024471             |

**G 1 flush mount with metallic sealing taper**

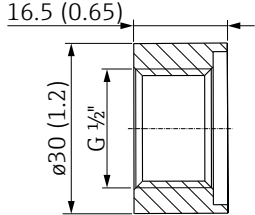
| Dimensions in mm (in)                                                                                                                                                                                                                                                                                                                      | Version                                                                                                                                                                                                                                                                                                               | Order number           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
|  <p><b>NOTICE</b><br/><b>Leaking connection</b><br/>Repeated screwing in of the process connection can cause damage to the weld-in adapter. The connection will not be leak-tight.<br/>► Use sealing taper G 1 flush mount for screwing in only once.</p> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4404)<br/>Roughness (process side): <math>R_a \leq 0.8 \mu\text{m}</math> (31.5 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p> | 52005087<br>52010171   |
|                                                                                                                                                                                                                                                                                                                                            | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                      | 52005272               |
|                                                                                                                                                                                                                                                                                                                                            | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 $\mu\text{in}$ )                                                                                                                                                            | 71171731 <sup>1)</sup> |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

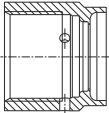
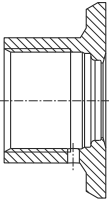
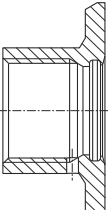
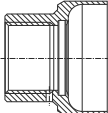
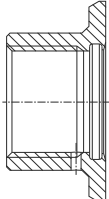
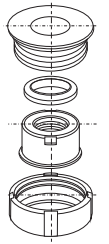
**G ½ flush mount**

| Dimensions in mm (in)                                                                                                                      | Version                                                                                                                                                                                                                                                                             | Order number         |
|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
|  <p>Pressure resistance<br/>max. 100 bar (1500 psi)</p> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.8 \mu\text{m}</math> (31.5 <math>\mu\text{in}</math>)</p> | 52002643<br>52010172 |
|                                                                                                                                            | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                    | 52005082             |

**G ½ DIN3852**

| Dimensions in mm (in)                                                                                                                      | Version                                                                                                                                                                                                                                                                             | Order number         |
|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
|  <p>Pressure resistance<br/>Max. 100 bar (1500 psi)</p> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4404)<br/>Roughness (process side): <math>R_a \leq 0.8 \mu\text{m}</math> (31.5 <math>\mu\text{in}</math>)</p> | 71389241<br>71389243 |
|                                                                                                                                            | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                    | 52005082             |

## Weld-in adapter - Temperature overview

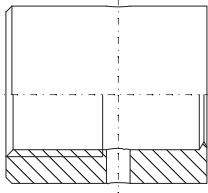
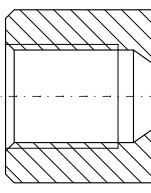
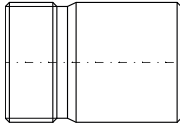
|                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>[Part 1]</b><br><br><b>Weld-in adapter</b><br><b>Temperature overview</b> |  |  |  |  |  |  |
|                                                                              | A0008246                                                                          | A0008251                                                                          | A0008256                                                                          | A0011924                                                                           | A0008248                                                                            | A0008253                                                                            |
|                                                                              | <b>G ¾, d=29<br/>pipe-mounting</b>                                                | <b>G ¾, d=50<br/>vessel-<br/>mounting</b>                                         | <b>G ¾, d=55<br/>with flange</b>                                                  | <b>G 1, d=53<br/>pipe-mounting</b>                                                 | <b>G 1, d=60<br/>with flange</b>                                                    | <b>G 1<br/>adjustable</b>                                                           |
| Material                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                      | 316L (1.4435)                                                                       | 316L (1.4435)                                                                       |
| Roughness µm (µin) process side                                              | ≤ 1.5 (59.1)                                                                      | ≤ 0.8 (31.5)                                                                      | ≤ 0.76 (29.9)                                                                     | ≤ 0.76 (29.9)                                                                      | ≤ 0.76 (29.9)                                                                       | ≤ 0.8 (31.5)                                                                        |
| Order number weld-in adapter                                                 | 71258357                                                                          | 71258355                                                                          | 52001052                                                                          | 71258358                                                                           | 52001051                                                                            | 52001221                                                                            |
| Order number weld-in adapter with inspection certificate <sup>1)</sup>       | 52028295                                                                          | 52018765                                                                          | 52011897                                                                          | 71093129                                                                           | 52011896                                                                            | 52011898                                                                            |
| Order number replacement seal (5 pieces)                                     | Silicone O-ring 52021717 <sup>2)</sup>                                            | Silicone O-ring 52021717 <sup>2)</sup>                                            | Silicone O-ring 52014473 <sup>2)</sup>                                            | Silicone O-ring 52014472 <sup>2)</sup>                                             | Silicone O-ring 52014472 <sup>2)</sup>                                              | Silicone profile gasket 52014424 <sup>3)</sup>                                      |
| Order number welding dummy                                                   | 71174959                                                                          | 71174959                                                                          | 71168889                                                                          | 71166879                                                                           | 71166879                                                                            | 71181945                                                                            |
| Order number blind plug                                                      | 71167850                                                                          | 71167850                                                                          | 71177193                                                                          | 71173810                                                                           | 71173810                                                                            | 71166366                                                                            |
| Order number blind plug with inspection certificate <sup>1)</sup>            | –                                                                                 | –                                                                                 | 71190074                                                                          | 71167291                                                                           | 71167291                                                                            | 71196853                                                                            |
| <b>Measuring instrument</b>                                                  | <b>Suitable for process connection</b><br>Option <sup>4)</sup>                    |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| <b>Compact thermometer</b>                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| TMR35                                                                        | AC                                                                                | AC                                                                                | AB                                                                                | AD                                                                                 | AD                                                                                  | AD                                                                                  |
| TM311                                                                        | J1                                                                                | J1                                                                                | J2                                                                                | J3                                                                                 | J3                                                                                  | J3                                                                                  |
| <b>Hygienic thermometer</b>                                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| TM371                                                                        | J1                                                                                | J1                                                                                | J2                                                                                | J3                                                                                 | J3                                                                                  | J3                                                                                  |
| TM372                                                                        | J1                                                                                | J1                                                                                | J2                                                                                | J3                                                                                 | J3                                                                                  | J3                                                                                  |
| TM411                                                                        | J1                                                                                | J1                                                                                | J2                                                                                | J3                                                                                 | J3                                                                                  | J3                                                                                  |
| <b>Thermowell</b>                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| TT411                                                                        | J1                                                                                | J1                                                                                | J2                                                                                | J3                                                                                 | J3                                                                                  | J3                                                                                  |

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

3) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal

4) The option can be selected in the Product Configurator via the appropriate order feature.

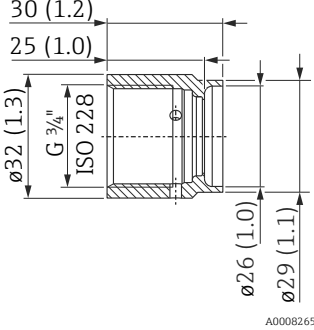
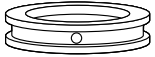
|                                                                              |                                                                                   |                                                                                    |                                                                                     |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>[Part 2]</b><br><br><b>Weld-in adapter</b><br><b>Temperature overview</b> |  |  |  |
|                                                                              | <b>Weld-in adapter with<br/>sealing taper<br/>for G 1/2</b>                       | <b>Weld-in adapter with<br/>sealing taper<br/>for M12x1.5</b>                      | <b>G 1 1/4<br/>for Ingold process connection</b>                                    |
| Material                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                      | 316L (1.4435)                                                                       |
| Order number<br>weld-in adapter                                              | 71424800                                                                          | 71405560                                                                           | 71531585                                                                            |
| Order number<br>replacement seal (5 pieces) <sup>1)</sup>                    | –                                                                                 | –                                                                                  | Silicone O-ring<br>60018911                                                         |
| Order number<br>blind plug                                                   | 60022519                                                                          | 60021194                                                                           | –                                                                                   |
| <b>Measuring instrument</b>                                                  | <b>Suitable for process connection<br/>Option<sup>2)</sup></b>                    |                                                                                    |                                                                                     |
| <b>Compact thermometer</b>                                                   |                                                                                   |                                                                                    |                                                                                     |
| TMR31                                                                        | –                                                                                 | –                                                                                  | –                                                                                   |
| TMR35                                                                        | MB                                                                                | –                                                                                  | –                                                                                   |
| TM311                                                                        | H2                                                                                | H1                                                                                 | –                                                                                   |
| <b>Hygienic thermometer</b>                                                  |                                                                                   |                                                                                    |                                                                                     |
| TM371                                                                        | H2                                                                                | H1                                                                                 | M1/M3                                                                               |
| TM372                                                                        | –                                                                                 | –                                                                                  | –                                                                                   |
| TM401                                                                        | H2                                                                                | H1                                                                                 | –                                                                                   |
| TM411                                                                        | H2                                                                                | H1                                                                                 | M1/M3                                                                               |
| <b>Thermowell</b>                                                            |                                                                                   |                                                                                    |                                                                                     |
| TT411                                                                        | H2                                                                                | H1                                                                                 | M1/M3                                                                               |
| <b>Temperature switch</b>                                                    |                                                                                   |                                                                                    |                                                                                     |
| TTR31                                                                        | –                                                                                 | –                                                                                  | –                                                                                   |
| TTR35                                                                        | MB                                                                                | –                                                                                  | –                                                                                   |
| <b>Flow switch</b>                                                           |                                                                                   |                                                                                    |                                                                                     |
| DTT31                                                                        | –                                                                                 | –                                                                                  | –                                                                                   |
| DTT35                                                                        | MB                                                                                | –                                                                                  | –                                                                                   |

1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

2) The option can be selected in the Product Configurator via the appropriate order feature.

## Weld-in adapter and accessories - Temperature

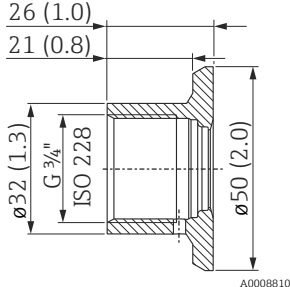
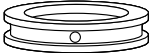
G 3/4, d=29 pipe-mounting

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                               | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 1.5 µm (59.1 µin)</p> <p>Certified according to CRN</p> | 71258357<br>52028295                 |
|                                                                                                                                                                                                                                                                                             | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                      | 71174959 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                             | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): Ra ≤ 3.2 µm (126 µin)                                                                                                                                         | 71167850 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                       |                                      |
| Seals, pressure ring                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                       | Order number                         |
|                                                                                                                                                                                                          | <b>Standard seal</b>                                                                                                                                                                                                                                                  |                                      |
|                                                                                                                                                                                                                                                                                             | Silicone O-ring, ø 14.9 x 2.7 mm (0.59 x 0.11 in)<br>Material: VMQ 70<br>FDA-compliant                                                                                                                                                                                | 52021717 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | The seal can be easily replaced with this version.                                                                                                                                                                                                                    |                                      |
|                                                                                                                                                                                                                                                                                             | <b>Alternative seals</b>                                                                                                                                                                                                                                              |                                      |
|                                                                                                                                                                                                                                                                                             | ø 15.08 x 2.62 mm (0.59 x 0.10 in)<br>Material: EPDM<br>Complies with FDA, USP Class VI, EC1935<br>EHEDG certified                                                                                                                                                    | 71529759 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                          | ø 15.08 x 2.62 mm (0.59 x 0.10 in)<br>Material: FKM<br>Complies with FDA, USP Class VI, EC1935<br>EHEDG certified                                                                                                                                                     | 71167890 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | ø 14.9 x 2.7 mm (0.59 x 0.11 in)<br>Material: Silicone VMQ 80<br>Complies with FDA, USP Class VI                                                                                                                                                                      | 71086117<br>(3 pieces)               |
|                                                                                                                                                                                                                                                                                             | <b>Pressure ring</b><br>Material: 316L (1.4435) <ul style="list-style-type: none"> <li>The seal with pressure ring enables easy exchange of defective sealing rings.</li> </ul>                                                                                       | 52027421                             |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

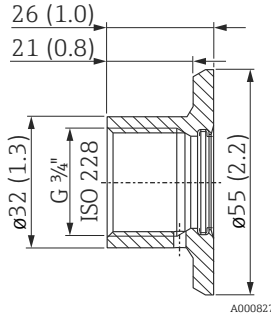
## G ¾, d=50 vessel-mounting

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                               | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.8 µm (31.5 µin)</p> <p>Certified according to CRN</p> | 71258355<br>52018765                 |
|                                                                                                                                                                                                                                                                                             | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                      | 71174959 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                             | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): Ra ≤ 3.2 µm (126 µin)                                                                                                                                         | 71167850 <sup>1)</sup>               |
| Seals, pressure ring                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                       | Order number                         |
|                                                                                                                                                                                                          | <b>Standard seal</b>                                                                                                                                                                                                                                                  |                                      |
|                                                                                                                                                                                                                                                                                             | Silicone O-ring, ø 14.9 x 2.7 mm (0.59 x 0.11 in)<br>Material: VMQ 70<br>FDA-compliant<br><br>The seal can be easily replaced with this version.                                                                                                                      | 52021717 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | <b>Alternative seals</b>                                                                                                                                                                                                                                              |                                      |
|                                                                                                                                                                                                                                                                                             | ø 15.08 x 2.62 mm (0.59 x 0.10 in)<br>Material: EPDM<br>Complies with FDA, USP Class VI, EC1935<br><br>EHEDG certified                                                                                                                                                | 71529759 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | ø 15.08 x 2.62 mm (0.59 x 0.10 in)<br>Material: FKM<br>Complies with FDA, USP Class VI, EC1935<br><br>EHEDG certified                                                                                                                                                 | 71167890 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                          | <b>Pressure ring</b><br>Material: 316L (1.4435)<br><br><ul style="list-style-type: none"> <li>The seal with pressure ring enables easy exchange of defective sealing rings.</li> </ul>                                                                                | 71086117<br>(3 pieces)               |
|                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                       | 52027421                             |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

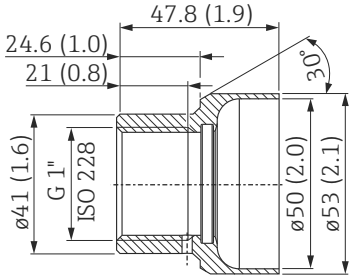
**G 3/4, d=55 with flange for flush mounting**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                         | Order number                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.8 µm (31.5 µin)</p>                                             | 52001052<br>52011897                             |
|                                                                                                                                                                                                                                                                                             | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                | 71168889 <sup>1)</sup>                           |
|                                                                                                                                                                                                                                                                                             | Blind plug for sealing the weld-in adapter <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> | 71177193 <sup>1)</sup><br>71190074 <sup>1)</sup> |
|                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                 |                                                  |
| Seals, ø 21.89 x 2.62 mm (0.86 x 0.10 in)                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                 | Order number                                     |
|                                                                                                                                                                                                          | <b>Standard seal</b>                                                                                                                                                                                                                                                            |                                                  |
|                                                                                                                                                                                                                                                                                             | Silicone O-ring<br>Material: VMQ 70<br>Complies with FDA, EC1935, GB4806                                                                                                                                                                                                        | 52014473 <sup>2)</sup><br>(5 pieces)             |
|                                                                                                                                                                                                                                                                                             | <b>Alternative seals</b>                                                                                                                                                                                                                                                        |                                                  |
|                                                                                                                                                                                                                                                                                             | Material: EPDM 70<br>Complies with FDA, USP Class VI, EC1935, GB4806<br><br>EHEDG certified                                                                                                                                                                                     | 71140670 <sup>2)</sup><br>(3 pieces)             |
|                                                                                                                                                                                                                                                                                             | Material: FFKM Kalrez 6221<br><br>Complies with FDA, USP Class VI                                                                                                                                                                                                               | 71167883 <sup>1)</sup>                           |
|                                                                                                                                                                                                                                                                                             | Material: FKM<br><br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                    | 71172153 <sup>1)</sup><br>(5 pieces)             |
|                                                                                                                                                                                                                                                                                             | Material: FKM FEP coated<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                             | 71167747 <sup>1)</sup>                           |
|                                                                                                                                                                                                                                                                                             | Material: Silicone VMQ 3-80<br>Complies with FDA, USP Class VI, EC1935, GB4806                                                                                                                                                                                                  | 71086100<br>(3 pieces)                           |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

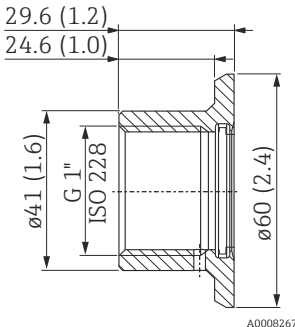
## G 1, d=53 pipe-mounting

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                                                                         | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p>          | 71258358<br>71093129                 |
|                                                                                                                                                                                                                                                                                             | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                                | 71166879 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                             | Blind plug for sealing the weld-in adapter <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p> | 71173810<br>71167291 <sup>1)</sup>   |
| Seals, $\varnothing 28.17 \times 3.53 \text{ mm}$ (1.11 x 0.14 in)                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                 | Order number                         |
|                                                                                                                                                                                                          | <b>Standard seal</b>                                                                                                                                                                                                                                                                                                            |                                      |
|                                                                                                                                                                                                                                                                                             | Silicone O-ring<br>Material: VMQ 70<br>Complies with FDA, EC1935, GB4806                                                                                                                                                                                                                                                        | 52014472 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | <b>Alternative seals</b>                                                                                                                                                                                                                                                                                                        |                                      |
|                                                                                                                                                                                                                                                                                             | Material: EPDM 70<br>Complies with FDA, USP Class VI, EC1935<br><br>EHEDG certified                                                                                                                                                                                                                                             | 71140668 <sup>2)</sup><br>(3 pieces) |
|                                                                                                                                                                                                                                                                                             | Material: FKM 75                                                                                                                                                                                                                                                                                                                | 71182264 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | Material: FFKM Kalrez 4079                                                                                                                                                                                                                                                                                                      | 71166292 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                             | Material: Silicone VMQ 3-80<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                                                          | 71086102<br>(3 pieces)               |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

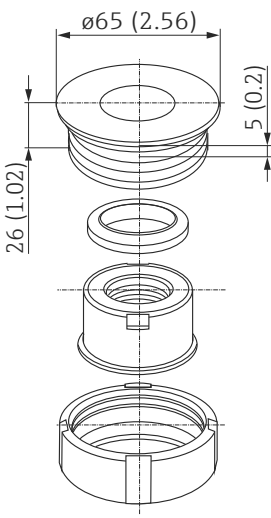
**G 1, d=60 with flange for flush mounting**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                         | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p>          | 52001051<br>52011896                 |
|                                                                                                                                                                                                                                                                                             | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                | 71166879 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                             | Blind plug for sealing the weld-in adapter <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> | 71173810<br>71167291 <sup>1)</sup>   |
| Seals, ø 28.17 x 3.53 mm (1.11 x 0.14 in)                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                 | Order number                         |
|                                                                                                                                                                                                          | <b>Standard seal</b>                                                                                                                                                                                                                                                            |                                      |
|                                                                                                                                                                                                                                                                                             | Silicone O-ring<br>Material: VMQ 70<br>Complies with FDA, EC1935, GB4806                                                                                                                                                                                                        | 52014472 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | <b>Alternative seals</b>                                                                                                                                                                                                                                                        |                                      |
|                                                                                                                                                                                                                                                                                             | Material: EPDM 70<br>Complies with FDA, USP Class VI, EC1935<br><br>EHEDG certified                                                                                                                                                                                             | 71140668 <sup>2)</sup><br>(3 pieces) |
|                                                                                                                                                                                                                                                                                             | Material: FKM 75                                                                                                                                                                                                                                                                | 71182264 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | Material: FFKM Kalrez 4079                                                                                                                                                                                                                                                      | 71166292 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                             | Material: Silicone VMQ 3-80<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                          | 71086102<br>(3 pieces)               |

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

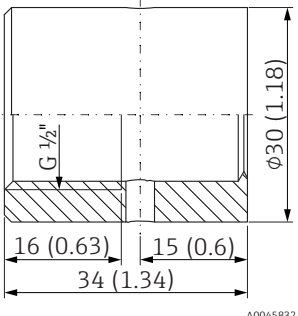
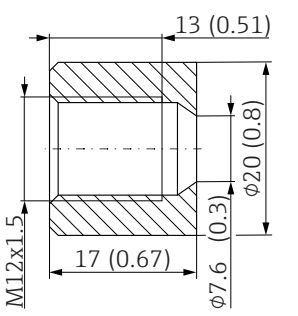
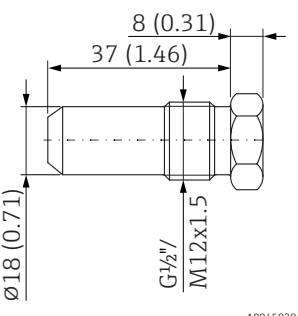
## G1 sensor adjustable

| Dimensions in mm (in)                                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                                                               | Order number                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> <p>A0008272</p> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.8 \mu\text{m}</math> (31.5 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p> | <p>52001221<br/>52011898</p>         |
|                                                                                                                                                                                                                                                                                                             | Welding dummy for welding the weld-in adapter<br>Material: Brass                                                                                                                                                                                                                                                      | 71181945 <sup>1)</sup>               |
|                                                                                                                                                                                                                                                                                                             | Blind plug for sealing the weld-in adapter<br>Material: AISI 316L (1.4435)<br>Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 $\mu\text{in}$ )                                                                                                                                                            | 71166366 <sup>1)</sup>               |
| Seals, Ø 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in)                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                       | Order number                         |
|  <p>A0021901</p>                                                                                                                                                                                                         | <b>Standard seal</b>                                                                                                                                                                                                                                                                                                  |                                      |
|                                                                                                                                                                                                                                                                                                             | Silicone profile gasket<br>Material: VMQ 60<br>Complies with FDA, EC1935                                                                                                                                                                                                                                              | 52014424 <sup>2)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                                             | <b>Alternative seals</b>                                                                                                                                                                                                                                                                                              |                                      |
|                                                                                                                                                                                                                                                                                                             | Material: EPDM 70                                                                                                                                                                                                                                                                                                     | 71168375 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                                             | Material: VMQ 60<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                                                           | 71075662<br>(5 pieces)               |

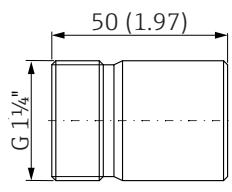
1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal

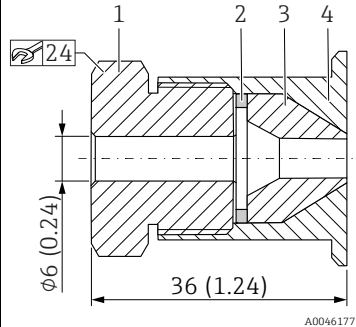
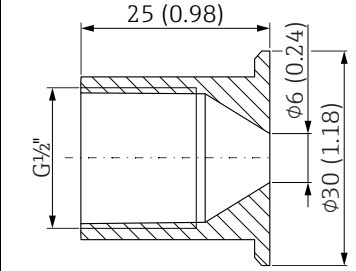
**Weld-in adapter with sealing taper for G ½ or M12x1.5 thread**

| Dimensions in mm (in)                                                                               | Version                                                                                                                                            | Order number                               |
|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
|  <p>A0045832</p>   | <p>Weld-in adapter for G ½ or M12x1.5 thread, metal sealing; conical</p> <p>Material: Parts in contact with the process<br/>AISI 316L (1.4435)</p> | 71424800 (G ½)                             |
|  <p>A0045833</p>   |                                                                                                                                                    | 71405560 (M12x1.5)                         |
| <p>Process pressure</p> <ul style="list-style-type: none"> <li>max. 16 bar (232 psi)</li> </ul>     |                                                                                                                                                    |                                            |
|  <p>A0045839</p> | <p>Blind plug for G ½ or M12x1.5 conical metal-sealing weld-in adapter</p> <p>Material: AISI 316L (1.4435)</p>                                     | 60022519 (G ½)<br>In preparation (M12x1.5) |

**Weld-in adapter for Ingold process connection**

| Dimensions in mm (in)                                                                               | Version                                                           | Order number        |
|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------|
|  <p>A0045835</p> | <p>G 1¼ x 50 mm (1.97 in)</p> <p>Material: AISI 316L (1.4435)</p> | 71531585            |
| <b>Seal</b>                                                                                         |                                                                   | <b>Order number</b> |
|  <p>A0021901</p> |                                                                   |                     |
| <b>O-ring seal set</b>                                                                              |                                                                   |                     |
| <p>Silicone O-ring<br/>FDA-compliant</p> <p>Maximum temperature: 230 °C (446 °F)</p>                |                                                                   | 60018911            |

Weld-in adapter with sealing taper with/without pressure screw

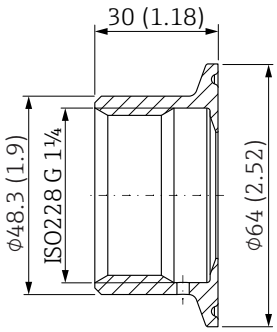
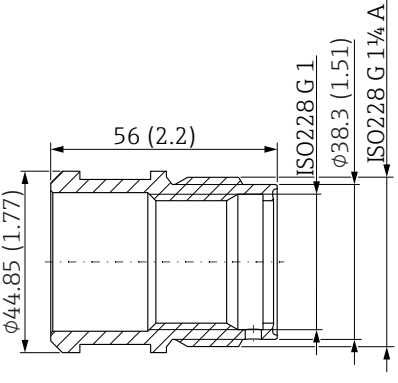
| Dimensions in mm (in)                                                                                                                                                                                                                                                          | Version                                                                                                                                                 | Order number                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| <div><p>1 Pressure screw, 303/304<br/>2 Washer, 303/304<br/>3 Sealing taper, PEEK<br/>4 Collar welding boss, 316L</p><p>Process pressure<br/>■ Max. 10 bar (145 psi)</p><p>A0046177</p></div> | <p>Collar welding boss movable with sealing taper, washer and pressure screw G 1/2</p> <p>Material of parts in contact with the process: 316L, PEEK</p> | <p>In preparation (with pressure screw)</p> |
| <div><p>Process pressure<br/>■ Max. 10 bar (145 psi)</p><p>A0046175</p></div>                                                                                                                | <p>Collar welding boss</p> <p>Material: Parts in contact with the process AISI 316L (1.4435)</p>                                                        | <p>51004752 (without pressure screw)</p>    |

## Nivector FTI26 hygienic process adapter



Pay attention to the temperature and pressure specifications for the seals and clips used at the customer site.

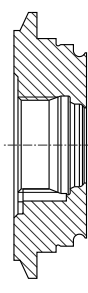
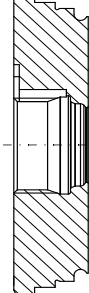
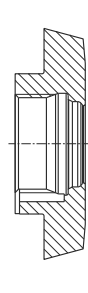
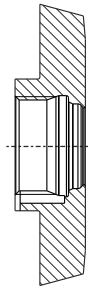
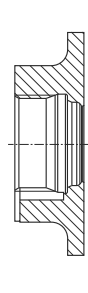
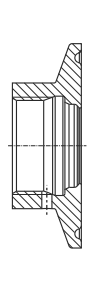
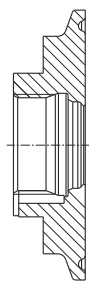
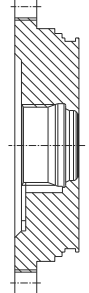
### Process adapter G 1¼ Tri-Clamp 2" with threaded sleeve

| Dimensions in mm (in)                                                                                                                                                                                                                                                                                                                                                                                                    | Version                                                                                                                                                                                                                              | Order number                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
|  <p>Process adapter G 1¼</p> <p>A0045642</p>  <p>Threaded sleeve</p> <p>A0045644</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 6 bar (87 psi) / -20 °C to +80 °C (-4 °F to +176 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4404)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> | <p>–</p> <p>71444431</p>                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>Measuring instrument: Nivector FTI26</li> <li>Suitable for process connection<sup>1)</sup></li> <li>Option: WDJ</li> <li>As "Accessory enclosed"<sup>1)</sup></li> <li>Option: RK</li> </ul>  |                                                |
| Seal, ø 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in)                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                      | Order number                                   |
|  <p>A0021901</p>                                                                                                                                                                                                                                                                                                                      | <b>Standard seal</b>                                                                                                                                                                                                                 |                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>Silicone profile gasket</p> <p>Material: VMQ 60</p> <p>Complies with FDA, USP Class VI, EC1935</p>                                                                                                                                | <p>71075662<sup>2)</sup></p> <p>(5 pieces)</p> |
|                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Alternative seal</b>                                                                                                                                                                                                              |                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>Silicone profile gasket</p> <p>Material: VMQ 60</p> <p>Complies with FDA, EC1935</p>                                                                                                                                              | <p>52014424<sup>2)</sup></p> <p>(5 pieces)</p> |

1) The option can be selected in the Product Configurator via the appropriate order feature.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

## Process adapter M24 - Level and pressure overview

|                                                                           |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Process adapter M24                                                       |  |  |  |  |  |  |  |  |
|                                                                           | A0023286                                                                          | A0023419                                                                          | A0023547                                                                          | A0023418                                                                          | A0023420                                                                            | A0023423                                                                            | A0023426                                                                            | A0023422                                                                            |
|                                                                           | <b>Varivent F<br/>DN25</b>                                                        | <b>Varivent N<br/>DN50/40</b>                                                     | <b>DIN11851<br/>DN40</b>                                                          | <b>DIN11851<br/>DN50</b>                                                          | <b>SMS 1½</b>                                                                       | <b>Clamp 1½</b>                                                                     | <b>Clamp 2</b>                                                                      | <b>APV Inline</b>                                                                   |
| Material                                                                  | 316L<br>(1.4435)                                                                  | 316L<br>(1.4435)                                                                  | 316L<br>(1.4435)                                                                  | 316L<br>(1.4435)                                                                  | 316L<br>(1.4435)                                                                    | 316L<br>(1.4435)                                                                    | 316L<br>(1.4435)                                                                    | 316L<br>(1.4435)                                                                    |
| Roughness µm (µin)<br>process side                                        | ≤ 0.76<br>(29.9)                                                                  | ≤ 0.76<br>(29.9)                                                                  | ≤ 0.76<br>(29.9)                                                                  | ≤ 0.76<br>(29.9)                                                                  | ≤ 0.76<br>(29.9)                                                                    | ≤ 0.76<br>(29.9)                                                                    | ≤ 0.76<br>(29.9)                                                                    | ≤ 0.76<br>(29.9)                                                                    |
| Order number process adapter                                              | 52023996                                                                          | 52023997                                                                          | 52023999                                                                          | 52023998                                                                          | 52026997                                                                            | 52023994                                                                            | 52023995                                                                            | 52024000                                                                            |
| Order number process adapter<br>with inspection certificate <sup>1)</sup> | 52024003                                                                          | 52024004                                                                          | 52024006                                                                          | 52024005                                                                          | 52026999                                                                            | 52024001                                                                            | 52024002                                                                            | 52024007                                                                            |
| Order number<br>replacement seal (5 pieces) <sup>2)</sup>                 | EPDM<br>52024267                                                                  | EPDM<br>52024267                                                                  | EPDM<br>52024267                                                                  | EPDM<br>52024267                                                                  | EPDM<br>52024267                                                                    | EPDM<br>52024267                                                                    | EPDM<br>52024267                                                                    | EPDM<br>52024267                                                                    |
| Slotted nut                                                               | –                                                                                 | –                                                                                 | 71258361                                                                          | 71258361                                                                          | –                                                                                   | –                                                                                   | –                                                                                   | –                                                                                   |
| <b>Measuring instrument</b>                                               | <b>Suitable for process connection<br/>Option<sup>3)</sup></b>                    |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Liquipoint</b>                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| FTW23, FTW33                                                              | X2J                                                                               | X2J                                                                               | X2J                                                                               | X2J                                                                               | X2J                                                                                 | X2J                                                                                 | X2J                                                                                 | X2J                                                                                 |
| <b>Liquitrend</b>                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| QMW43                                                                     | X2J                                                                               | X2J                                                                               | X2J                                                                               | X2J                                                                               | X2J                                                                                 | X2J                                                                                 | X2J                                                                                 | X2J                                                                                 |
| <b>Liquiphant</b>                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| FTL33                                                                     | X2J                                                                               | X2J                                                                               | X2J                                                                               | X2J                                                                               | X2J                                                                                 | X2J                                                                                 | X2J                                                                                 | X2J                                                                                 |
| <b>Ceraphant</b>                                                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| PTP33B                                                                    | X2J/X3J                                                                           | X2J/X3J                                                                           | X2J/X3J                                                                           | X2J/X3J                                                                           | X2J/X3J                                                                             | X2J/X3J                                                                             | X2J/X3J                                                                             | X2J/X3J                                                                             |
| <b>Cerabar</b>                                                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| PMP23                                                                     | X2J/X3J                                                                           | X2J/X3J                                                                           | X2J/X3J                                                                           | X2J/X3J                                                                           | X2J/X3J                                                                             | X2J/X3J                                                                             | X2J/X3J                                                                             | X2J/X3J                                                                             |
| <b>Liquipoint</b>                                                         | <b>As "Accessory enclosed"<br/>Option<sup>4)</sup></b>                            |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| FTW23                                                                     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| FTW33                                                                     | RC/RD                                                                             | RA/RB                                                                             | –                                                                                 | RE/RF                                                                             | RG/RH                                                                               | RI/RJ                                                                               | RK/RL                                                                               | –                                                                                   |
| FTW33                                                                     | RC/RD                                                                             | RA/RB                                                                             | –                                                                                 | RE/RF                                                                             | RG/RH                                                                               | –                                                                                   | –                                                                                   | –                                                                                   |
| <b>Liquiphant</b>                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| FTL33                                                                     | RC/RD                                                                             | RA/RB                                                                             | –                                                                                 | RE/RF                                                                             | RG/RH                                                                               | –                                                                                   | –                                                                                   | –                                                                                   |

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) Already included in the scope of delivery for the process adapter: 1 x standard seal.

3) The option can be selected in the Product Configurator via the order feature "Process Connection".

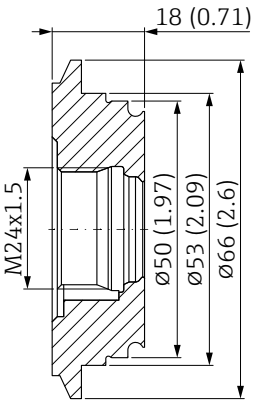
4) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

## Process adapter M24 - Level and pressure



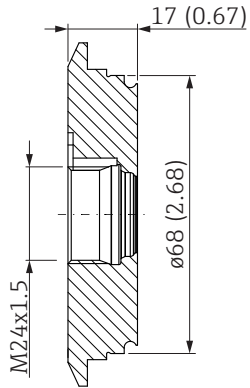
Pay attention to the temperature and pressure specifications for the seals and clips used at the customer site.

### Varivent F DN25

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                | Order number                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p> | <p>52023996<br/>52024003</p>                |
| Seal ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                        | Order number                                |
|                                                                                                                                                                                                          | <p><b>Standard seal</b></p> <p>O-ring<br/>Material: EPDM 70</p> <p>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHEDG certified</p>                                                                                                                          | <p>52024267<sup>1)</sup><br/>(5 pieces)</p> |

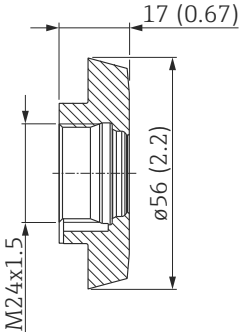
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

## Varivent N DN50/40

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                                                                | Order number                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p> | <p>52023997<br/>52024004</p>                |
| Seal, ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                        | Order number                                |
|                                                                                                                                                                                                          | <p><b>Standard seal</b></p> <p>O-ring<br/>Material: EPDM 70</p> <p>Material: FKM</p> <p>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHEDG certified</p>                                                                                                                                                     | <p>52024267<sup>1)</sup><br/>(5 pieces)</p> |

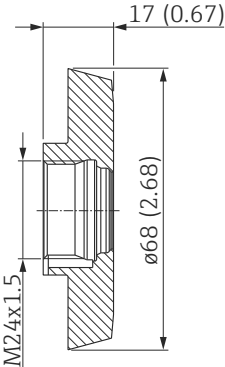
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

## DIN11851 DN40

| Dimensions in mm (in)                                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                                                                | Order number                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|  <p>A0023548</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p> | <p>52023999<br/>52024006</p>                |
| Seal, $\varnothing 15.54 \times 2.62 \text{ mm}$ (0.61 x 0.1 in)                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                        | Order number                                |
|  <p>A0021901</p>                                                                                                                                                     | <p><b>Standard seal</b></p> <p>O-ring<br/>Material: EPDM 70<br/>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHEDG certified</p>                                                                                                                                                                             | <p>52024267<sup>1)</sup><br/>(5 pieces)</p> |

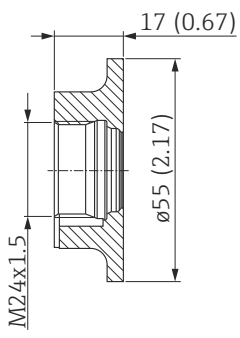
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

DIN11851 DN50

| Dimensions in mm (in)                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                             | Order number                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <div><p>A0023273</p><p>Pressure and temperature range of the adapter</p><ul style="list-style-type: none"><li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li></ul></div> | <ul style="list-style-type: none"><li>Without inspection certificate</li><li>With inspection certificate EN10204-3.1 material</li></ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p> | 52023998<br>52024005                 |
| Seal, ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                     | Order number                         |
| <div><p>A0021901</p></div>                                                                                                                                               | <div><p>Standard seal</p><p>O-ring<br/>Material: EPDM 70<br/>Complies with FDA, USP Class VI, EC1935, GB4806</p><p>EHEDG certified</p></div>                                                                                                                        | 52024267 <sup>1)</sup><br>(5 pieces) |

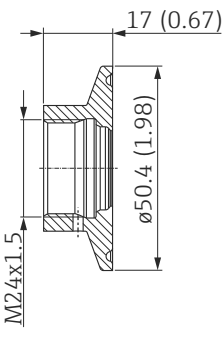
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

## SMS 1½

| Dimensions in mm (in)                                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                | Order number                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|  <p>A0023278</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p> | <p>52026997<br/>52026999</p>                |
| Seal, Ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                        | Order number                                |
|  <p>A0021901</p>                                                                                                                                                     | <p><b>Standard seal</b></p> <p>O-ring<br/>Material: EPDM 70<br/>Complies with FDA, USP Class VI, EC1935, GB4806<br/>EHEDG certified</p>                                                                                                                                | <p>52024267<sup>1)</sup><br/>(5 pieces)</p> |

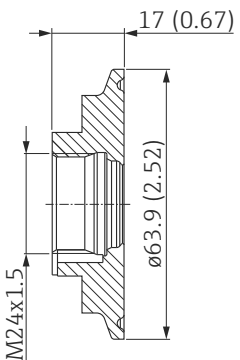
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

**Clamp 1½ (DIN 32676,  
ISO 2852)**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                                           | Version                                                                                                                                                                                                                                                                    | Order number                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|  <p>A0023284</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>■ max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>■ max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>■ Without inspection certificate</li> <li>■ With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p> | <p>52023994<br/>52024001</p>                |
| Seal, ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                            | Order number                                |
|  <p>A0021901</p>                                                                                                                                                                                                              | <p><b>Standard seal</b></p> <p>O-ring<br/>Material: EPDM 70<br/>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHEDG certified</p>                                                                                                                                 | <p>52024267<sup>1)</sup><br/>(5 pieces)</p> |

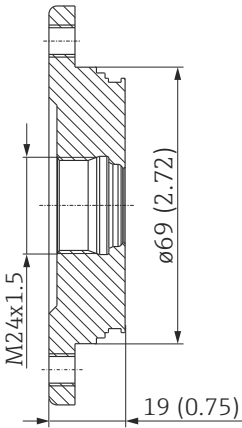
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

**Clamp 2 (DIN 32676,  
ISO 2852)**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                                           | Version                                                                                                                                                                                                                                                                    | Order number                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|  <p>A0023281</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>■ max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>■ max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>■ Without inspection certificate</li> <li>■ With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p> | <p>52023995<br/>52024002</p>                |
| Seal, ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                            | Order number                                |
|  <p>A0021901</p>                                                                                                                                                                                                             | <p><b>Standard seal</b></p> <p>O-ring<br/>Material: EPDM 70<br/>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHDG certified</p>                                                                                                                                  | <p>52024267<sup>1)</sup><br/>(5 pieces)</p> |

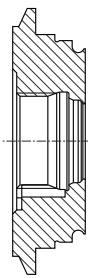
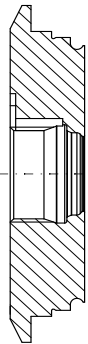
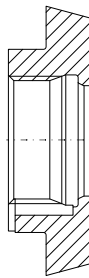
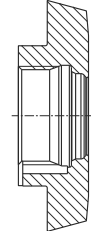
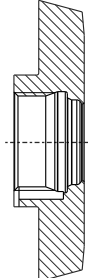
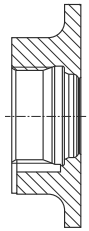
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

## APV Inline

| Dimensions in mm (in)                                                                                                                                                                                                                                                                                           | Version                                                                                                                                                                                                                                  | Order number                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|  <p>A0023421</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>■ max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>■ max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>■ Without inspection certificate</li> <li>■ With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> | <p>52024000<br/>52024007</p>                |
| Seal, Ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                          | Order number                                |
|  <p>A0021901</p>                                                                                                                                                                                                             | <p><b>Standard seal</b></p> <p>O-ring<br/>Material: EPDM 70<br/>Complies with FDA, USP Class VI, EC1935, GB4806<br/>EHEDG certified</p>                                                                                                  | <p>52024267<sup>1)</sup><br/>(5 pieces)</p> |

1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

## Process adapter M24 - Micropilot Level overview

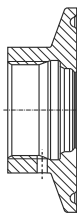
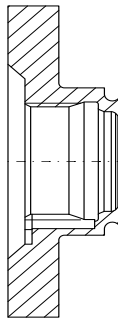
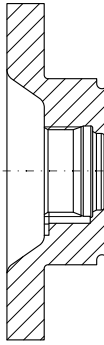
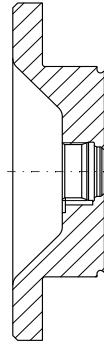
|                                                                           |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Part 1<br><br>Only for Micropilot<br><br>Process adapter M24              |  |  |  |  |  |  |
|                                                                           | A0023286                                                                          | A0023419                                                                          | A0056482                                                                          | A0023547                                                                           | A0023418                                                                            | A0023420                                                                            |
|                                                                           | Varivent F<br>DN25                                                                | Varivent N<br>DN50/40                                                             | DIN11851<br>DN32 with<br>slotted nut                                              | DIN11851<br>DN40 with<br>slotted nut                                               | DIN11851<br>DN50 with<br>slotted nut                                                | SMS 1½ with<br>slotted nut                                                          |
| Material                                                                  | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                      | 316L (1.4435)                                                                       | 316L (1.4435)                                                                       |
| Roughness µm (µin)<br>process side                                        | ≤ 0.76 (29.9)                                                                     | ≤ 0.76 (29.9)                                                                     | ≤ 0.76 (29.9)                                                                     | ≤ 0.76 (29.9)                                                                      | ≤ 0.76 (29.9)                                                                       | ≤ 0.76 (29.9)                                                                       |
| Order number process adapter                                              | 71653517                                                                          | 71653534                                                                          | 71653550                                                                          | 71653556                                                                           | 71653559                                                                            | 71653562                                                                            |
| Order number process adapter with<br>inspection certificate <sup>1)</sup> | 71653532                                                                          | 71653536                                                                          | 71653552                                                                          | 71653557                                                                           | 71653560                                                                            | 71653564                                                                            |
| Order number<br>EPDM replacement seal (5 pieces)                          | 71653949                                                                          | 71653949                                                                          | 71653949                                                                          | 71653949                                                                           | 71653949                                                                            | 71653949                                                                            |
| Order number<br>FKM replacement seal (1 piece)                            | 71337274                                                                          | 71337274                                                                          | 71337274                                                                          | 71337274                                                                           | 71337274                                                                            | 71337274                                                                            |
| Order number<br>FFKM replacement seal (1 piece) <sup>2)</sup>             | 71567760                                                                          | 71567760                                                                          | 71567760                                                                          | 71567760                                                                           | 71567760                                                                            | 71567760                                                                            |
| Measuring instrument                                                      | Suitable for process connection<br>Option <sup>3)</sup>                           |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| Micropilot                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMR43                                                                     | X2J                                                                               | X2J                                                                               | X2J                                                                               | X2J                                                                                | X2J                                                                                 | X2J                                                                                 |
| FMR62                                                                     | U2J                                                                               | U2J                                                                               | –                                                                                 | U2J                                                                                | U2J                                                                                 | U2J                                                                                 |
| FMR63B                                                                    | X2J                                                                               | X2J                                                                               | –                                                                                 | X2J                                                                                | X2J                                                                                 | X2J                                                                                 |
| Measuring instrument                                                      | As "Accessory enclosed"<br>Option <sup>4)</sup>                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| Micropilot                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMR43                                                                     | –                                                                                 | RB                                                                                | RD                                                                                | RE                                                                                 | RF                                                                                  | RI                                                                                  |
| FMR62, FMR63B                                                             | RC/RD                                                                             | RA/RB                                                                             | –                                                                                 | RE/RF                                                                              | RG/RH                                                                               | RI/RJ                                                                               |

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) FFKM O-ring applies to Micropilot FMR63B only.

3) The option can be selected in the Product Configurator via the order feature "Process connection".

4) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

|                                                                                        |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Part 2<br><br>Only for Micropilot<br><br>Process adapter M24                           |  |  |  |  |  |
|                                                                                        | A0023423                                                                          | A0023426                                                                          | A0056484                                                                           | A0056486                                                                            | A0056488                                                                            |
|                                                                                        | Clamp 1½                                                                          | Clamp 2                                                                           | NEUMO BioControl D25                                                               | NEUMO BioControl D50                                                                | NEUMO BioControl D80                                                                |
| Material                                                                               | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                      | 316L (1.4435)                                                                       | 316L (1.4435)                                                                       |
| Roughness µm (µin) process side                                                        | ≤ 0.76 (29.9)                                                                     | ≤ 0.76 (29.9)                                                                     | -                                                                                  | -                                                                                   | -                                                                                   |
| Roughness µm (µin) process side electropolished                                        | ≤ 0.38 (15.0)                                                                     | ≤ 0.38 (15.0)                                                                     | ≤ 0.38 (15.0)                                                                      | ≤ 0.38 (15.0)                                                                       | ≤ 0.38 (15.0)                                                                       |
| Order number process adapter                                                           | 71653565                                                                          | 71653573                                                                          | -                                                                                  | -                                                                                   | -                                                                                   |
| Order number process adapter with inspection certificate <sup>1)</sup>                 | 71653568                                                                          | 71653575                                                                          | -                                                                                  | -                                                                                   | -                                                                                   |
| Order number process adapter electropolished                                           | 71653570                                                                          | 71653577                                                                          | -                                                                                  | -                                                                                   | -                                                                                   |
| Order number process adapter electropolished with inspection certificate <sup>1)</sup> | 71653571                                                                          | 71653578                                                                          | 71653585                                                                           | 71653591                                                                            | 71653596                                                                            |
| Order number EPDM replacement seal (5 pieces)                                          | 71653949                                                                          | 71653949                                                                          | 71653949                                                                           | 71653949                                                                            | 71653949                                                                            |
| Order number FFKM replacement seal (1 piece) <sup>2)</sup>                             | 71567760                                                                          | 71567760                                                                          | 71567760                                                                           | 71567760                                                                            | 71567760                                                                            |
|                                                                                        | Suitable for process connection<br>Option <sup>3)</sup>                           |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| Measuring instrument                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| Micropilot                                                                             |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMR43                                                                                  | X2J                                                                               | X2J                                                                               | X2J                                                                                | X2J                                                                                 | X2J                                                                                 |
| FMR62                                                                                  | U2J                                                                               | –                                                                                 | –                                                                                  | –                                                                                   | –                                                                                   |
| FMR63B                                                                                 | X2J                                                                               | –                                                                                 | –                                                                                  | –                                                                                   | –                                                                                   |
|                                                                                        | As "Accessory enclosed"<br>Option <sup>4)</sup>                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| Measuring instrument                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| Micropilot                                                                             |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMR43                                                                                  | RL                                                                                | RM                                                                                | RR                                                                                 | RS                                                                                  | RT                                                                                  |
| FMR62, FMR63B                                                                          | RK/RL                                                                             | –                                                                                 | –                                                                                  | –                                                                                   | –                                                                                   |

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) FFKM O-ring applies to Micropilot FMR63B only.

3) The option can be selected in the Product Configurator via the order feature "Process connection".

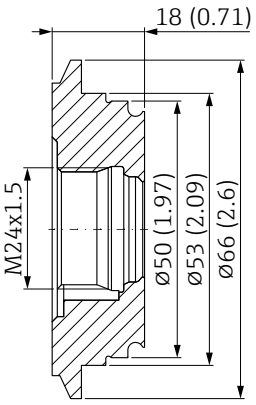
4) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

## Process adapter M24 - Micropilot Level



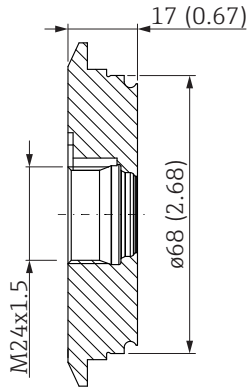
Pay attention to the temperature and pressure specifications for the seals and clips used at the customer site.

### Varivent F DN25 - Only for Micropilot

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                                                                | Order number                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p> | <p>71653517<br/>71653532</p>                                |
| Seal, O-rings $\varnothing 15.54 \times 2.62 \text{ mm}$ (0.61 x 0.1 in)                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                        | Order number                                                |
|                                                                                                                                                                                                          | <p>Material: EPDM 70</p> <p>Material: FKM</p> <p>Material: FFKM<sup>1)</sup></p> <p>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHEDG certified</p>                                                                                                                                                         | <p>71653949<br/>(5 pieces)<br/>71337274</p> <p>71567760</p> |

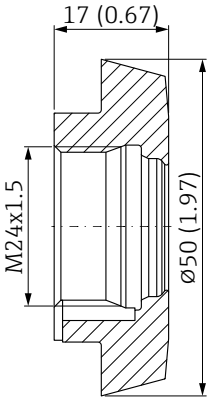
1) FFKM O-ring applies to Micropilot FMR63B only.

**Varivent N DN50/40 -  
Only for Micropilot**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                | Order number                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p> | <p>71653534<br/>71653536</p>                                |
| Seal, O-rings, ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                        | Order number                                                |
|                                                                                                                                                                                                          | <p>Material: EPDM 70</p> <p>Material: FKM</p> <p>Material: FFKM<sup>1)</sup></p> <p>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHEDG certified</p>                                                                                                         | <p>71653949<br/>(5 pieces)<br/>71337274</p> <p>71567760</p> |

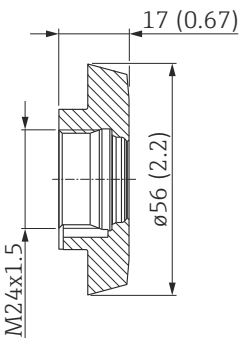
1) FFKM O-ring applies to Micropilot FMR63B only.

**DIN11851 DN32 with slotted  
nut - Only for Micropilot**

| Dimensions mm (in)                                                                                                                                                                                                                    | Version                                                                                                                                                                                                                                                                | Order number                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p> | <p>71653550<br/>71653552</p>                                |
| Seal, O-rings, ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                      |                                                                                                                                                                                                                                                                        | Order number                                                |
|                                                                                                                                                    | <p>Material: EPDM 70</p> <p>Material: FKM</p> <p>Material: FFKM<sup>1)</sup></p> <p>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHEDG certified</p>                                                                                                         | <p>71653949<br/>(5 pieces)<br/>71337274</p> <p>71567760</p> |

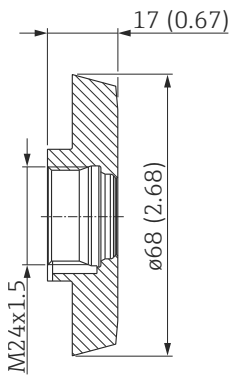
1) FFKM O-ring applies to Micropilot FMR63B only.

**DIN11851 DN40 with slotted nut - Only for Micropilot**

| Dimensions mm (in)                                                                                                                                                                                                                                    | Version                                                                                                                                                                                                                                                                | Order number                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
|  <p>A0023548</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p> | <p>71653556<br/>71653557</p>                             |
| Seal, O-rings, ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                        | Order number                                             |
|  <p>A0021901</p>                                                                                                                                                     | <p>Material: EPDM 70</p> <p>Material: FKM</p> <p>Material: FFKM<sup>1)</sup></p> <p>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHEDG certified</p>                                                                                                         | <p>71653949<br/>(5 pieces)<br/>71337274<br/>71567760</p> |

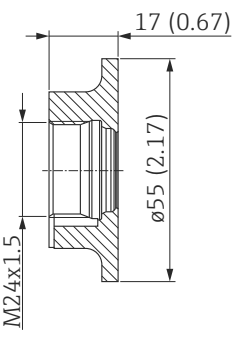
1) FFKM O-ring applies to Micropilot FMR63B only.

**DIN11851 DN50 with slotted  
nut - Only for Micropilot**

| Dimensions in mm (in)                                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                                                                | Order number                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
|  <p>A0023273</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p> | <p>71653559<br/>71653560</p>                                |
| Seal, O-rings, $\varnothing 15.54 \times 2.62 \text{ mm}$ (0.61 x 0.1 in)                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                        | Order number                                                |
|  <p>A0021901</p>                                                                                                                                                    | <p>Material: EPDM 70</p> <p>Material: FKM</p> <p>Material: FFKM<sup>1)</sup></p> <p>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHEDG certified</p>                                                                                                                                                         | <p>71653949<br/>(5 pieces)<br/>71337274</p> <p>71567760</p> |

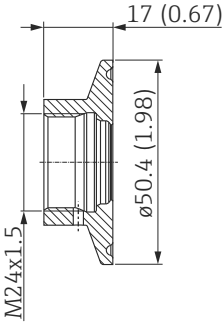
1) FFKM O-ring applies to Micropilot FMR63B only.

**SMS 1½ with slotted nut -  
Only for Micropilot**

| Dimensions in mm (in)                                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                | Order number                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
|  <p>A0023278</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Certified according to CRN</p> | <p>71653562<br/>71653564</p>                             |
| Seal, O-rings, Ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                        | Order number                                             |
|  <p>A0021901</p>                                                                                                                                                     | <p>Material: EPDM 70</p> <p>Material: FKM</p> <p>Material: FFKM<sup>1)</sup></p> <p>Complies with FDA, USP Class VI, EC1935, GB4806</p> <p>EHEDG certified</p>                                                                                                         | <p>71653949<br/>(5 pieces)<br/>71337274<br/>71567760</p> |

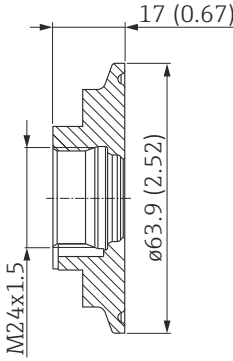
1) FFKM O-ring applies to Micropilot FMR63B only.

**Clamp 1½  
(DIN 32676, ISO 2852)-  
Only for Micropilot**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                                           | Version                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Order number                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
|  <p>A0023284</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>■ max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>■ max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>■ Without inspection certificate</li> <li>■ With inspection certificate EN10204-3.1 material</li> <li>■ Electropolished, without inspection certificate</li> <li>■ Electropolished, with inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 (29.9)<br/>electropolished: Ra ≤ 0.38 µm (29.9 µin)</p> <p>Certified according to CRN</p> | <p>71653565<br/>71653568</p> <p>71653570<br/>71653571</p>   |
| Seal, O-rings, ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Order number                                                |
|  <p>A0021901</p>                                                                                                                                                                                                              | <p>Material: EPDM 70</p> <p>Material: FKM</p> <p>Material: FFKM<sup>1)</sup></p> <p>Complies with FDA, USP Class VI, EC1935</p> <p>EHEDG certified</p>                                                                                                                                                                                                                                                                                                   | <p>71653949<br/>(5 pieces)<br/>71337274</p> <p>71567760</p> |

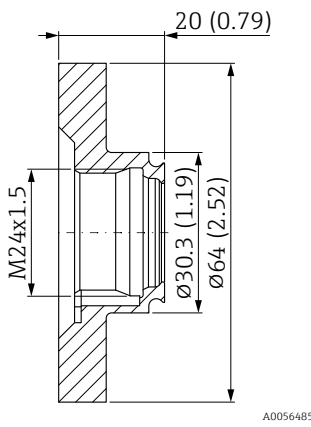
1) FFKM O-ring applies to Micropilot FMR63B only.

**Clamp 2**  
**(DIN 32676, ISO 2852)-**  
**Only for Micropilot**

| Dimensions in mm (in)                                                                                                                                                                                                                                                                           | Version                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Order number                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>■ max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> <li>■ max. 40 bar (580 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>■ Without inspection certificate</li> <li>■ With inspection certificate EN10204-3.1 material</li> <li>■ Electropolished, without inspection certificate</li> <li>■ Electropolished, with inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/> Roughness (process side): <math>R_a \leq 0.76</math> (29.9)<br/> electropolished: <math>R_a \leq 0.38 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p> | <p>71653573<br/>71653575</p> <p>71653577<br/>71653578</p>      |
| Seal, O-rings, $\varnothing 15.54 \times 2.62 \text{ mm}$ (0.61 x 0.1 in)                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Order number                                                   |
|                                                                                                                                                                                                              | <p>Material: EPDM 70</p> <p>Material: FKM</p> <p>Material: FFKM<sup>1)</sup></p> <p>Complies with FDA, USP Class VI, EC1935</p> <p>EHEDG certified</p>                                                                                                                                                                                                                                                                                                                                                                      | <p>71653949<br/>(5 pieces)</p> <p>71337274</p> <p>71567760</p> |

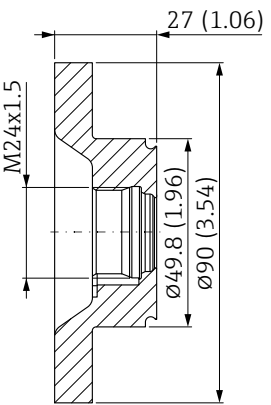
1) FFKM O-ring applies to Micropilot FMR63B only.

**NEUMO BioControl D25 -  
Only for Micropilot**

| Dimensions in mm (in)                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                                                             | Order number                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Electropolished, with inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): electropolished:<br/><math>Ra \leq 0.38 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p> <p>Certified according to CRN</p> | 71653585                                                       |
| Seal, O-rings, $\varnothing 15.54 \times 2.62 \text{ mm}$ (0.61 x 0.1 in)                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                     | Order number                                                   |
|                                                                                                                                                     | <p>Material: EPDM 70</p> <p>Material: FKM</p> <p>Material: FFKM<sup>1)</sup></p> <p>Complies with FDA, USP Class VI, EC1935</p> <p>EHEDG certified</p>                                                                                                                                                              | <p>71653949<br/>(5 pieces)</p> <p>71337274</p> <p>71567760</p> |

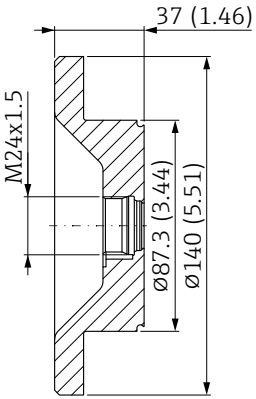
1) FFKM O-ring applies to Micropilot FMR63B only.

**NEUMO BioControl D50 -  
Only for Micropilot**

| Dimensions in mm (in)                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                                                   | Order number                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Electropolished, with inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/> Roughness (process side): electropolished:<br/> <math>Ra \leq 0.38 \mu m</math> (29.9 <math>\mu in</math>)</p> <p>Certified according to CRN</p> | 71653591                                                       |
| Seal, O-rings, $\varnothing 15.54 \times 2.62 \text{ mm}$ (0.61 x 0.1 in)                                                                                                                                                             |                                                                                                                                                                                                                                                                                                           | Order number                                                   |
|                                                                                                                                                     | <p>Material: EPDM 70</p> <p>Material: FKM</p> <p>Material: FFKM<sup>1)</sup></p> <p>Complies with FDA, USP Class VI, EC1935</p> <p>EHEDG certified</p>                                                                                                                                                    | <p>71653949<br/>(5 pieces)</p> <p>71337274</p> <p>71567760</p> |

1) FFKM O-ring applies to Micropilot FMR63B only.

**NEUMO BioControl D80 -  
Only for Micropilot**

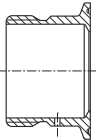
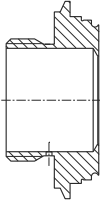
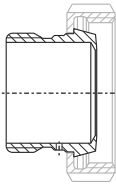
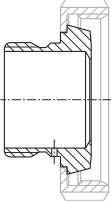
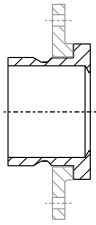
| Dimensions in mm (in)                                                                                                                                                                                                                 | Version                                                                                                                                                                                                                                                                                                 | Order number                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 25 bar (362 psi) / max. 150 °C (302 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Electropolished, with inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): electropolished:<br/><math>Ra \leq 0.38 \mu m</math> (29.9 <math>\mu in</math>)</p> <p>Certified according to CRN</p> | 71653596                                                       |
| Seal, O-rings, Ø 15.54 x 2.62 mm (0.61 x 0.1 in)                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                         | Order number                                                   |
|                                                                                                                                                     | <p>Material: EPDM 70</p> <p>Material: FKM</p> <p>Material: FFKM<sup>1)</sup></p> <p>Complies with FDA, USP Class VI, EC1935</p> <p>EHEDG certified</p>                                                                                                                                                  | <p>71653949<br/>(5 pieces)</p> <p>71337274</p> <p>71567760</p> |

1) FFKM O-ring applies to Micropilot FMR63B only.

## Process adapter UNI - Pressure overview



The following adapters can be used to establish a connection between the customer's process connection and the Endress+Hauser measuring instrument with a universal adapter.

| Process adapter UNI - Pressure overview                                |  |  |  |  |  |
|------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                        | A0023532                                                                          | A0023530                                                                          | A0023413                                                                           | A0023417                                                                            | A0021898                                                                            |
|                                                                        | Clamp 2                                                                           | Varivent N                                                                        | DIN11851 DN40                                                                      | DIN11851 DN50                                                                       | DRD DN50                                                                            |
| Material                                                               | 316L (1.4435)                                                                     | 316L (1.4435)                                                                     | 316L (1.4435)                                                                      | 316L (1.4435)                                                                       | 316L (1.4435)                                                                       |
| Roughness $\mu\text{m}$ ( $\mu\text{in}$ ) process side                | $\leq 0.76$ (29.9)                                                                | $\leq 0.76$ (29.9)                                                                | $\leq 0.76$ (29.9)                                                                 | $\leq 0.76$ (29.9)                                                                  | $\leq 0.76$ (29.9)                                                                  |
| Order number process adapter                                           | 71114176                                                                          | 71114177                                                                          | 71114172                                                                           | 71114173                                                                            | 71114174                                                                            |
| Order number process adapter with inspection certificate <sup>1)</sup> | 71114207                                                                          | 71114208                                                                          | 71114178                                                                           | 71114205                                                                            | 71114206                                                                            |
| Order number replacement seal (5 pieces) <sup>2)</sup>                 | Silicone profile gasket 52023572                                                  | Silicone profile gasket 52023572                                                  | Silicone profile gasket 52023572                                                   | Silicone profile gasket 52023572                                                    | Silicone profile gasket 52023572                                                    |
| Scope of delivery                                                      | –                                                                                 | –                                                                                 | Slotted nut                                                                        | Slotted nut                                                                         | DRD flange                                                                          |
| <b>Measuring instrument</b>                                            | <b>Suitable for process connection</b><br>Option <sup>3)</sup>                    |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| <b>Cerabar</b>                                                         |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| PMP23                                                                  | 52J                                                                               | 52J                                                                               | 52J                                                                                | 52J                                                                                 | 52J                                                                                 |
| PMC51                                                                  | UNJ/UPJ                                                                           | UNJ/UPJ                                                                           | UNJ/UPJ                                                                            | UNJ/UPJ                                                                             | UNJ/UPJ                                                                             |
| PMP55                                                                  | UPJ                                                                               | UPJ                                                                               | UPJ                                                                                | UPJ                                                                                 | –                                                                                   |
| <b>Deltapilot</b>                                                      |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMB50                                                                  | UNJ/UPJ                                                                           | UNJ/UPJ                                                                           | UNJ/UPJ                                                                            | UNJ/UPJ                                                                             | UNJ/UPJ                                                                             |
| FMB70                                                                  | 00/01                                                                             | 00/01                                                                             | 00/01                                                                              | 00/01                                                                               | 00/01                                                                               |
| <b>Deltabar</b>                                                        |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMD71                                                                  | UNJ/UPJ                                                                           | UNJ/UPJ                                                                           | UNJ/UPJ                                                                            | UNJ/UPJ                                                                             | UNJ/UPJ                                                                             |
| FMD78                                                                  | 00                                                                                | 00                                                                                | 00                                                                                 | 00                                                                                  | 00                                                                                  |
|                                                                        | <b>As "Accessory enclosed"</b><br>Option <sup>4)</sup>                            |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| <b>Cerabar</b>                                                         |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| PMC51                                                                  | RD/R4                                                                             | RF/R6                                                                             | RA/R1                                                                              | RB/R2                                                                               | RC/R3                                                                               |
| <b>Deltapilot</b>                                                      |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| FMB50                                                                  | RD/R4                                                                             | RF/R6                                                                             | RA/R1                                                                              | RB/R2                                                                               | RC/R3                                                                               |

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

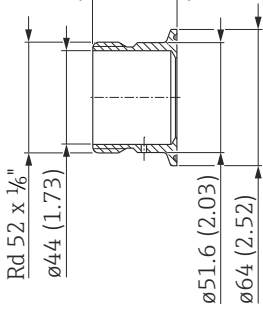
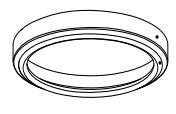
2) Already included in the scope of delivery for the process adapter: 1 x standard seal.

3) The option can be selected in the Product Configurator via the order feature "Process connection".

4) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

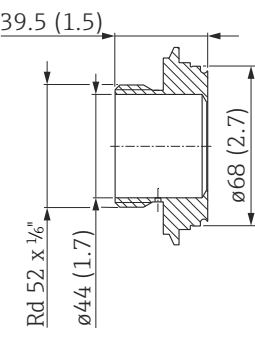
## Process adapter UNI - Pressure

### Clamp 2

| Dimensions in mm (in)                                                                                                                                                                                                                                      | Version                                                                                                                                                                                                                                                                                                                                                                                                     | Order number                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>A0023531</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 10 bar (150 psi) / max. 100 °C (212 °F)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): <math>R_a \leq 0.76 \mu\text{m}</math> (29.9 <math>\mu\text{in}</math>)</p>                                                                                                                        | <p>71114176<br/>71114207</p>         |
| Seals, backup ring                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                             | Order number                         |
|  <p>A0021901</p>                                                                                                                                                        | <b>Standard seal</b> $\varnothing 34 \times 41.5 \times 6.4 \text{ mm}$ (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                                                                                                             |                                      |
|                                                                                                                                                                                                                                                            | Silicone profile gasket<br>Material: SI 60<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                                                                                                                       | 52023572 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                            | <b>Alternative seal</b> $\varnothing 34 \times 41.5 \times 6.4 \text{ mm}$ (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                                                                                                          |                                      |
|                                                                                                                                                                                                                                                            | Profile gasket<br>Material: EPDM 70<br>Complies with FDA, USP Class VI                                                                                                                                                                                                                                                                                                                                      | 71100719<br>(5 pieces)               |
|  <p>A0042001</p>                                                                                                                                                        | <b>O-ring with backup ring</b>                                                                                                                                                                                                                                                                                                                                                                              |                                      |
|                                                                                                                                                                                                                                                            | <p>With inspection certificate EN10204-3.1 material<br/>Backup ring:<br/>Dimensions: <math>\varnothing 38.2 \times 43.6 \times 5.6 \text{ mm}</math> (1.5 x 1.72 x 0.22 in)<br/>Material: AISI 316L (1.4404)</p> <p>O-ring:<br/>Dimensions: <math>\varnothing 36 \times 2.5 \text{ mm}</math> (1.42 x 0.1 in)<br/>Material: EPDM 70 Shore A<br/>Complies with FDA, USP, Class VI</p> <p>EHEDG certified</p> | 71431380                             |

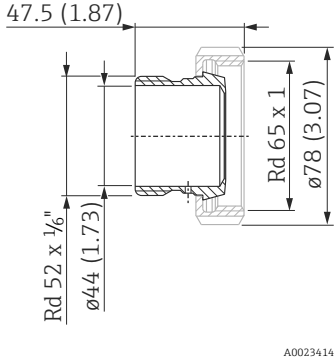
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

## Varivent N

| Dimensions in mm (in)                                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                                                                           | Order number                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  <p>A0023526</p> <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 10 bar (150 psi) / max. 100 °C (212 °F) (max. 135 °C (275 °F) for 30 minutes)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p>                                                                                              | <p>71114177</p> <p>71114208</p>      |
| Seals, backup ring                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                   | Order number                         |
|  <p>A0021901</p>                                                                                                                                                                                         | <b>Standard seal</b> ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                                                                 |                                      |
|                                                                                                                                                                                                                                                                                             | Silicone profile gasket<br>Material: SI 60<br>Complies with FDA, USP Class VI, EC1935                                                                                                                                                                                                                                             | 52023572 <sup>1)</sup><br>(5 pieces) |
|                                                                                                                                                                                                                                                                                             | <b>Alternative seal</b> ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                                                              |                                      |
|  <p>A0042001</p>                                                                                                                                                                                         | Profile gasket<br>Material: EPDM 70<br>Complies with FDA, USP Class VI,                                                                                                                                                                                                                                                           | 71100719<br>(5 pieces)               |
|                                                                                                                                                                                                                                                                                             | <b>O-ring with backup ring</b>                                                                                                                                                                                                                                                                                                    |                                      |
|                                                                                                                                                                                                                                                                                             | <p>With inspection certificate EN10204-3.1 material</p> <p>Backup ring:<br/>Dimensions: ø 38.2 x 43.6 x 5.6 mm (1.5 x 1.72 x 0.22 in)<br/>Material: AISI 316L (1.4404)</p> <p>O-ring:<br/>Dimensions: ø 36 x 2.5 mm (1.42 x 0.1 in)<br/>Material: EPDM 70 Shore A<br/>Complies with FDA, USP, Class VI</p> <p>EHEDG certified</p> | 71431380                             |

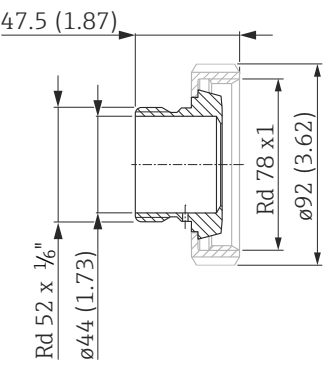
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

## DIN11851 DN40

| Dimensions in mm (in)                                                                                                                                                                                                                                                                                                                                                                                  | Version                                                                                                                                                                                                                                                                                                                        | Order number                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 10 bar (150 psi) / max. 100 °C (212 °F) (max. 135 °C (275 °F) for 30 minutes)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p>                                                                                           | <p>71114172<br/>71114178</p>                |
|                                                                                                                                                                                                                                                                                                                                                                                                        | <p>Material of slotted nut:<br/>Endress+Hauser supplies these slotted nuts in stainless steel AISI 304 (DIN/EN material number 1.4301) or in AISI 304L (DIN/EN material number 1.4307).</p>                                                                                                                                    |                                             |
| Seals, backup ring                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                | Order number                                |
|                                                                                                                                                                                                                                                                                                                     | <b>Standard seal</b> Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                                                              |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                        | <p>Silicone profile gasket<br/>Material: SI 60<br/>Complies with FDA, USP Class VI, EC1935</p>                                                                                                                                                                                                                                 | <p>52023572<sup>1)</sup><br/>(5 pieces)</p> |
|                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Alternative seal</b> Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                                                           |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                        | <p>Profile gasket<br/>Material: EPDM 70<br/>Complies with FDA, USP Class VI,</p>                                                                                                                                                                                                                                               | <p>71100719<br/>(5 pieces)</p>              |
|                                                                                                                                                                                                                                                                                                                     | <b>O-ring with backup ring</b>                                                                                                                                                                                                                                                                                                 |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                        | <p>With inspection certificate EN10204-3.1 material<br/>Backup ring:<br/>Dimensions: Ø 38.2 x 43.6 x 5.6 mm (1.5 x 1.72 x 0.22 in)<br/>Material: AISI 316L (1.4404)</p> <p>O-ring:<br/>Dimensions: Ø 36 x 2.5 mm (1.42 x 0.1 in)<br/>Material: EPDM 70 Shore A<br/>Complies with FDA, USP, Class VI</p> <p>EHEDG certified</p> | <p>71431380</p>                             |

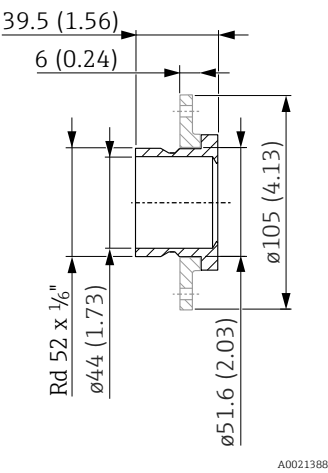
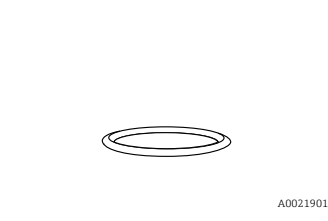
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

## DIN11851 DN50

| Dimensions in mm (in)                                                                                                                                                                                                                                                                                                                                                                                | Version                                                                                                                                                                                                                                                                                                                        | Order number                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 10 bar (150 psi) / max. 100 °C (212 °F) (max. 135 °C (275 °F) for 30 minutes)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p>                                                                                           | <p>71114173<br/>71114205</p>                |
|                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Material of slotted nut:<br/>Endress+Hauser supplies these slotted nuts in stainless steel AISI 304 (DIN/EN material number 1.4301) or in AISI 304L (DIN/EN material number 1.4307).</p>                                                                                                                                    |                                             |
| Seals, backup ring                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                | Order number                                |
|                                                                                                                                                                                                                                                                                                                   | <b>Standard seal</b> ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                                                              |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Silicone profile gasket<br/>Material: SI 60<br/>Complies with FDA, USP Class VI, EC1935</p>                                                                                                                                                                                                                                 | <p>52023572<sup>1)</sup><br/>(5 pieces)</p> |
|                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Alternative seal</b> ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                                                           |                                             |
|                                                                                                                                                                                                                                                                                                                   | <p>Profile gasket<br/>Material: EPDM 70<br/>Complies with FDA, USP Class VI</p>                                                                                                                                                                                                                                                | <p>71100719<br/>(5 pieces)</p>              |
|                                                                                                                                                                                                                                                                                                                                                                                                      | <b>O-ring with backup ring</b>                                                                                                                                                                                                                                                                                                 |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                      | <p>With inspection certificate EN10204-3.1 material<br/>Backup ring:<br/>Dimensions: ø 38.2 x 43.6 x 5.6 mm (1.5 x 1.72 x 0.22 in)<br/>Material: AISI 316L (1.4404)</p> <p>O-ring:<br/>Dimensions: ø 36 x 2.5 mm (1.42 x 0.1 in)<br/>Material: EPDM 70 Shore A<br/>Complies with FDA, USP, Class VI</p> <p>EHEDG certified</p> | <p>71431380</p>                             |

1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

## DRD DN50

| Dimensions in mm (in)                                                                                                                                                                                                                                                       | Version                                                                                                                                                                                                                                                                                                                                                                      | Order number                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|  <p>Pressure and temperature range of the adapter</p> <ul style="list-style-type: none"> <li>max. 10 bar (150 psi) / max. 100 °C (212 °F) (max. 135 °C (275 °F) for 30 minutes)</li> </ul> | <ul style="list-style-type: none"> <li>Without inspection certificate</li> <li>With inspection certificate EN10204-3.1 material</li> </ul> <p>Material: AISI 316L (1.4435)<br/>Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)</p> <p>Material of DRD flange:<br/>Endress+Hauser supplies this DRD flange in AISI 304 stainless steel (DIN/EN material number 1.4301).</p> | <p>71114174<br/>71114206</p>                |
| Seal, Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                              | Order number                                |
|                                                                                                                                                                                          | <b>Standard seal</b>                                                                                                                                                                                                                                                                                                                                                         |                                             |
|                                                                                                                                                                                                                                                                             | <p>Silicone profile gasket<br/>Material: SI 60<br/>Complies with FDA, USP Class VI, EC1935</p>                                                                                                                                                                                                                                                                               | <p>52023572<sup>1)</sup><br/>(5 pieces)</p> |
|                                                                                                                                                                                                                                                                             | <b>Alternative seal</b>                                                                                                                                                                                                                                                                                                                                                      |                                             |
|                                                                                                                                                                                                                                                                             | <p>Profile gasket<br/>Material: EPDM 70<br/>Complies with FDA, USP Class VI</p>                                                                                                                                                                                                                                                                                              | <p>71100719<br/>(5 pieces)</p>              |

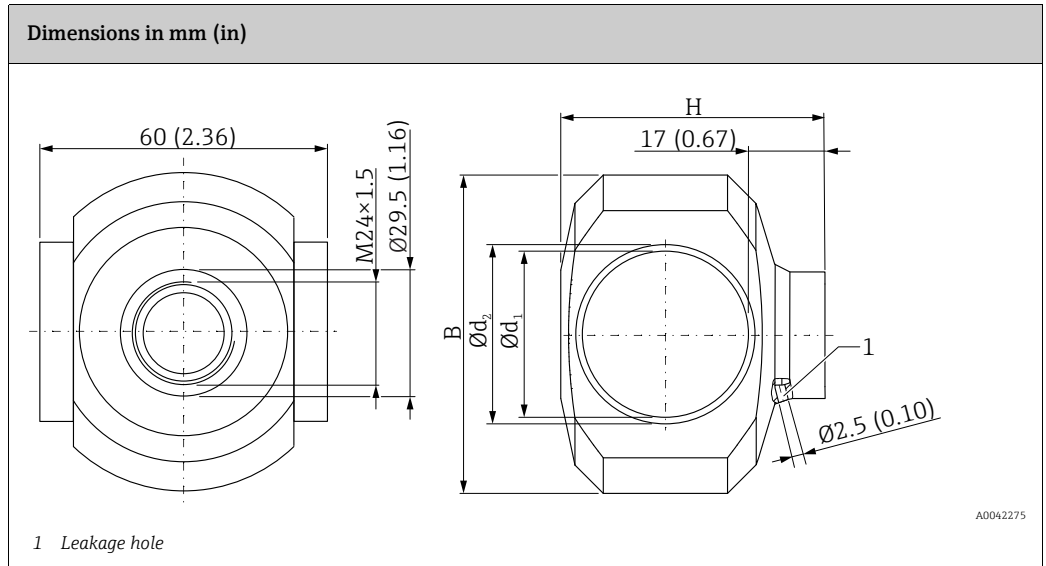
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

## Flush mount pipe connections M24×1.5 - Level and pressure

### General

- Material: AISI 316L (1.4404)
- Roughness: Ra wetted (inside) 0.76 µm (29.9 µin)/Ra outside: 1.6 µm (62.99 µin)
- Process temperature range: -40 to +130 °C (-40 to +266 °F)  
For a maximum of 30 minutes: +130 to +150 °C (+266 to +302 °F), e.g. SIP cleaning

### Pipe connection, weldable

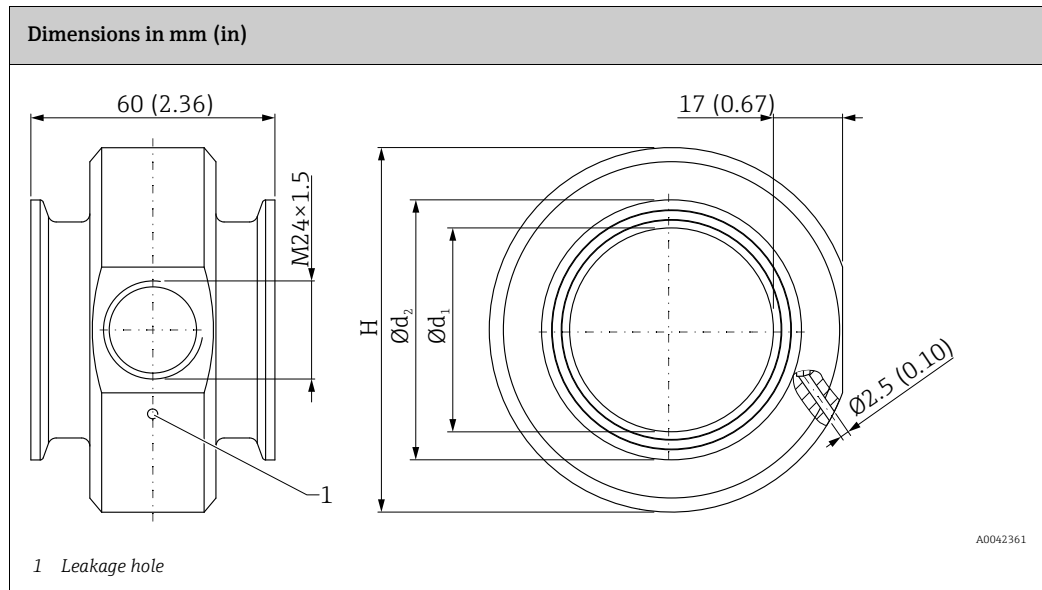


| Nominal diameter                                | DN25                                                            | DN32             | DN40             | DN50             |
|-------------------------------------------------|-----------------------------------------------------------------|------------------|------------------|------------------|
| Order number                                    | 71477801                                                        | 71477803         | 71477807         | 71477808         |
| B                                               | 67 mm (2.64 in)                                                 | 70 mm (2.56 in)  | 73 mm (2.87 in)  | 81 mm (3.19 in)  |
| H                                               | 48 mm (1.89 in)                                                 | 54 mm (2.13 in)  | 60 mm (2.36 in)  | 72 mm (2.83 in)  |
| Ø d1                                            | 26 mm (1.02 in)                                                 | 32 mm (1.26 in)  | 38 mm (1.50 in)  | 50 mm (2.00 in)  |
| Ø d2                                            | 29 mm (1.14 in)                                                 | 35 mm (1.34 in)  | 41 mm (1.61 in)  | 53 mm (2.09 in)  |
| MWP for gases in fluid group 2 <sup>1) 2)</sup> | 26 bar (377 psi)                                                | 26 bar (377 psi) | 20 bar (290 psi) | 20 bar (290 psi) |
| MWP for gases in fluid group 1 <sup>1) 2)</sup> | 26 bar (377 psi)                                                | 26 bar (377 psi) | 26 bar (377 psi) | 26 bar (377 psi) |
| Measuring instrument                            | Pipe connection as "Accessory enclosed"<br>Option <sup>3)</sup> |                  |                  |                  |
| Liquipoint                                      |                                                                 |                  |                  |                  |
| FTW23, FTW33                                    | QS                                                              | QU               | QW               | QY               |
| Liquitrend                                      |                                                                 |                  |                  |                  |
| QMW43                                           | QS                                                              | QU               | QW               | QY               |
| Ceraphant                                       |                                                                 |                  |                  |                  |
| PTP33B                                          | QS                                                              | QU               | QW               | QY               |
| Cerabar                                         |                                                                 |                  |                  |                  |
| PMP23                                           | QS                                                              | QU               | QW               | QY               |

1) The maximum working pressure depends on the temperature.

2) Specifications according to Pressure Equipment Directive, Rev. 01 pipe adapter, classification according to Pressure Equipment Directive (EU) 2014/68, Article 4, Paragraph 3.

3) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

**Pipe connection, clamp connection**


| Nominal diameter                                | DN25                                                            | DN32             | DN40              | DN50             |
|-------------------------------------------------|-----------------------------------------------------------------|------------------|-------------------|------------------|
| Order number                                    | 71477812                                                        | 71477813         | 71477816          | 71477817         |
| H                                               | 68 mm (2.68 in)                                                 | 73 mm (2.87 in)  | 78.5 mm (3.09 in) | 90 mm (3.54 in)  |
| Ø d1                                            | 26 mm (1.02 in)                                                 | 32 mm (1.26 in)  | 38 mm (1.50 in)   | 50 mm (2.00 in)  |
| Ø d2                                            | 50 mm (2.00 in)                                                 | 50 mm (2.00 in)  | 50 mm (2.00 in)   | 64 mm (2.50 in)  |
| MWP for gases in fluid group 2 <sup>1) 2)</sup> | 26 bar (377 psi)                                                | 26 bar (377 psi) | 20 bar (290 psi)  | 20 bar (290 psi) |
| MWP for gases in fluid group 1 <sup>1)2)</sup>  | 26 bar (377 psi)                                                | 26 bar (377 psi) | 26 bar (377 psi)  | 26 bar (377 psi) |
|                                                 |                                                                 |                  |                   |                  |
| Measuring instrument                            | Pipe connection as "Accessory enclosed"<br>Option <sup>3)</sup> |                  |                   |                  |
| Liquipoint                                      |                                                                 |                  |                   |                  |
| FTW23, FTW33                                    | QT                                                              | QV               | QX                | QZ               |
| Liquitrend                                      |                                                                 |                  |                   |                  |
| QMW43                                           | QT                                                              | QV               | QX                | QZ               |
| Ceraphant                                       |                                                                 |                  |                   |                  |
| PTP33B                                          | QT                                                              | QV               | QX                | QZ               |
| Cerabar                                         |                                                                 |                  |                   |                  |
| PMP23                                           | QT                                                              | QV               | QX                | QZ               |

1) The maximum working pressure depends on the temperature.

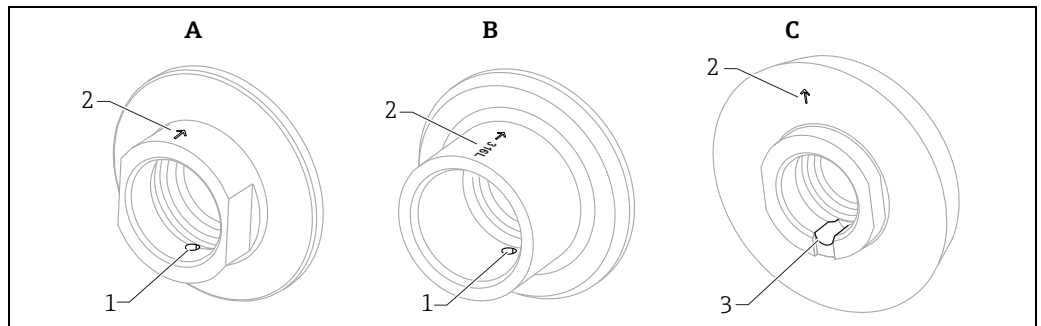
2) Specifications according to Pressure Equipment Directive, Rev. 01 pipe adapter, classification according to Pressure Equipment Directive (EU) 2014/68, Article 4, Paragraph 3.

3) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

## Mounting and welding instructions

-  Welding stainless steel requires utmost care. The workpieces and tools used must be free of rust. Similarly, no standard steel may be processed in the immediate vicinity.
-  When welding, the adapters should be protected against warping with a welding dummy if possible or protected by another cooling system (e.g. water cooling) used according to standard welding practice.  
The welding dummy can also be used with a suitable seal for flush sealing of the process when commissioning the system. Ensure material compatibility of the welding dummy.

**Leakage hole or leakage port** When using process adapters or weld-in adapters with a leakage hole or with a leakage port, ensure that the leakage hole or leakage port is facing downwards when installed horizontally. Leaks caused by escaping medium can thus be detected quickly.



- A Process adapter with leakage hole  
 B Weld-in adapter with leakage hole  
 C Process adapter with leakage port  
 1 Leakage hole  
 2 Marking, e.g. arrow and/or material specification, offset by 180° in relation to the hole or port  
 3 Port

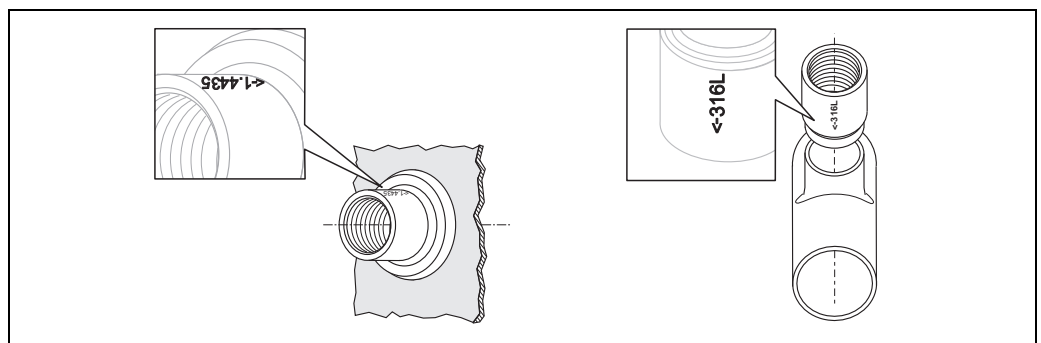
### Information for pressure measuring instruments

Note the following before installing a weld-in adapter for pressure measuring instruments:

- The maximum pressure resistance of a sensor is restricted. Therefore, utmost care must be taken during welding when using a weld-in adapter to screw in a pressure measuring cell.
- To prevent the weld-in adapter from warping during the welding process, it is essential to use the correct welding dummy to dissipate the heat. Otherwise, the integrity and pressure resistance cannot be guaranteed when the pressure measuring cell is screwed in. The welding dummy prevents warping of the weld-in adapter and any resulting leakage after the sensor has been fitted.

### Preparation

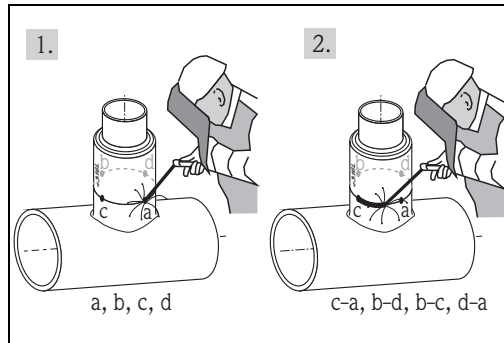
- Drill a hole in the vessel wall or piping  
Hole size: Outer diameter of weld-in adapter (max. tolerance: +0.2 mm (0.01 in))
- Slide the weld-in adapter with welding dummy into the hole and align it in a way as to ensure that the sensor will be positioned correctly. See the "Mounting" section from → 83.



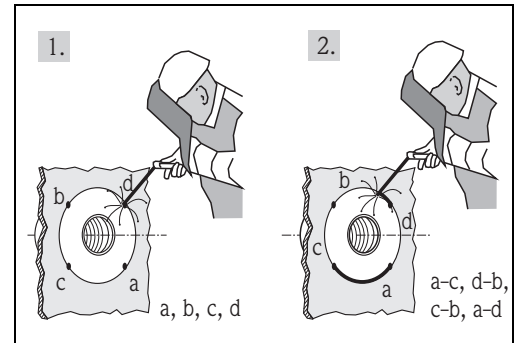
## Welding procedure

It is recommended to partition the welding seam into several segments (according to common welding practice).

- Pin the weld-in adapter with four or six welding spots (see the figures).
- Weld the segments between the spots in order to avoid deformation and leakage. After welding one segment, always weld the opposite segment.
- After welding two segments, stop the welding procedure until the workpiece has cooled down.
- Let the weld-in adapter cool down after welding and remove the welding dummy.



Welding of pipes



Welding of vessels



To obtain the desired surface roughness, polish the welding seam area.

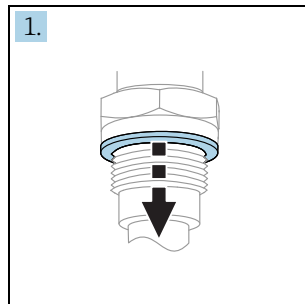
## Before mounting

### Instructions for Liquiphant

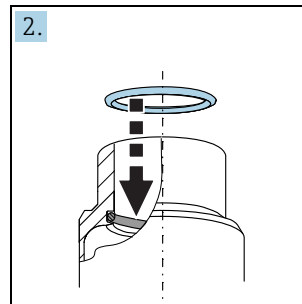
Some devices are supplied with a flat seal at the adapter.

- Remove the flat seal
- Use the O-ring supplied or the pressure ring with O-ring

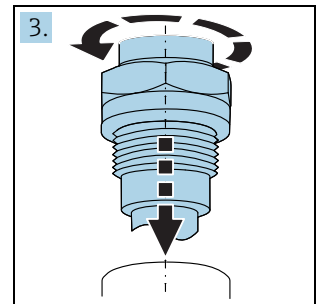
Scope of delivery: O-ring for G  $\frac{3}{4}$  d=55, G 1 d=53, G 1 d=60



A0045682

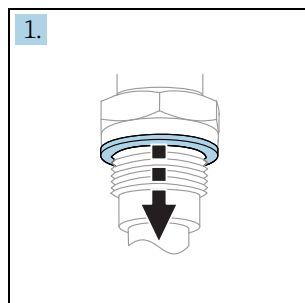


A0045683

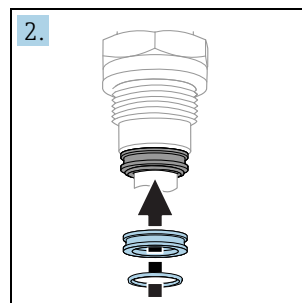


A0045684

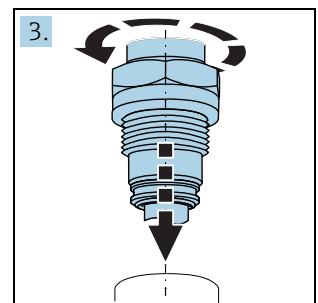
Scope of delivery: Pressure ring with O-ring for G  $\frac{3}{4}$  d=50, G  $\frac{3}{4}$  d=29



A0045682



A0045685



A0045686

## Mounting

### Instructions for level transmitters (e.g. Liquiphant)

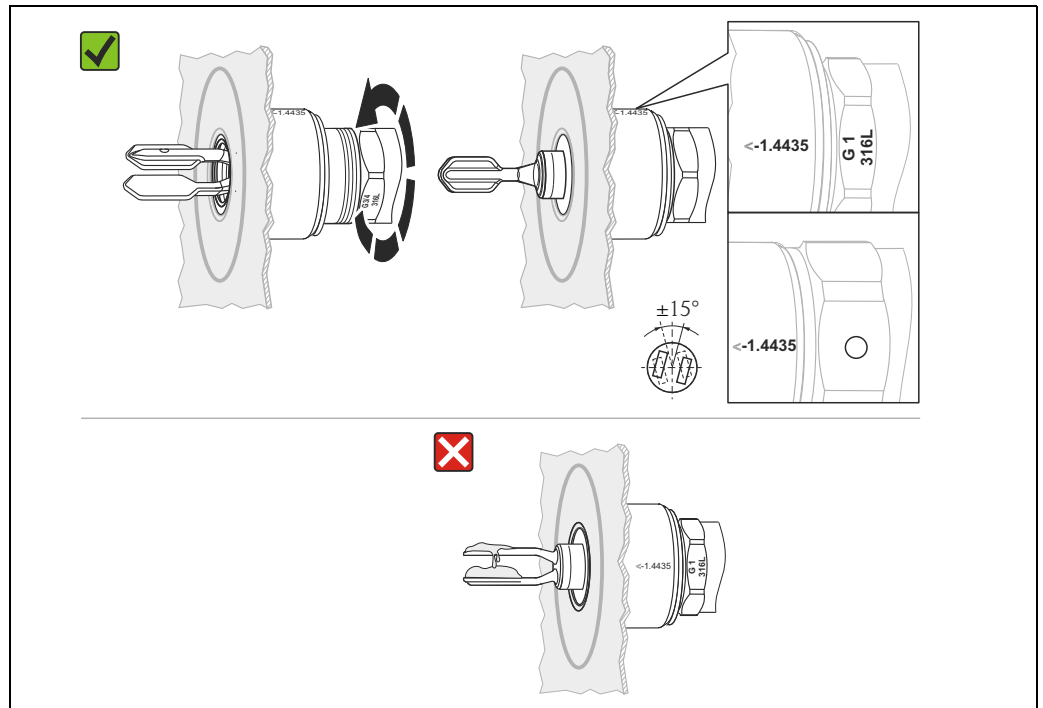
Align the vibrating fork using the marking:

The vibrating fork can be aligned using the marking in such a way that the medium drains off easily and buildup is avoided.

Markings on process connection: Material specification, thread designation, circle, line or double line.

Horizontal orientation in vessels:

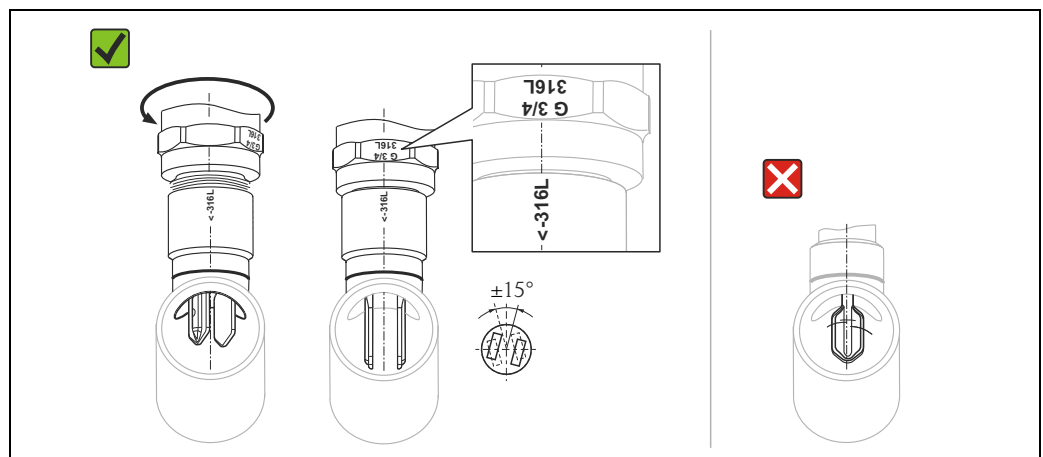
- the marking must be face up
- ensure that the leakage hole is pointing down. This allows leaks to be detected as quickly as possible, refer to "Leakage hole/leakage port" section → 81.



A0008871

Orientation in vessels

When mounted into pipes, the vibrating fork must be aligned in the direction of the flow according to the marking to minimize the contact surface of the medium on the sensor.



A0008872

Orientation in pipes

#### Instructions for pressure measuring cells

- Before mounting, all sealing surfaces at the weld-in adapter must be cleaned.
- Remove the protective cap from the pressure sensor.



Do not touch or damage the process membranes!

- Screw the pressure sensor firmly at the hexagonal nut. The threaded joint must be tightened by hand. It is recommended to secure the threaded joint with a torque of 60 Nm ( $\pm 20$  Nm) to protect it against vibrations and other influences.

---

#### Pressure resistance

The material of the weld-in adapter and quality of the weld are critical for the pressure capability. The complete length of the thread has to be used in order to ensure maximum pressure resistance.

## Flanges - Overview

### Specifications

The flanges are supplied in stainless steel AISI 316L with material number 1.4404 or 1.4435. With regard to their stability-temperature property, the materials 1.4404 and 1.4435 are grouped together under 13E0 in DIN EN 1092-1 Tab.18 and under 023b in JIS B2220:Tab. 5. The ASME flanges are dual rated flanges (316/316L) and grouped together under Tab. 2-2.2 in ASME B16.5.



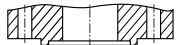
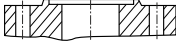
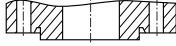
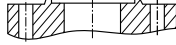
Values in inches are converted to values in millimeters using the factor 2.54. The mm values are rounded off to the nearest 0 or 5 in the ASME standard.

### Versions

| EN flanges        | ASME flanges                            | JIS flanges                  |
|-------------------|-----------------------------------------|------------------------------|
| European Standard | America Society of Mechanical Engineers | Japanese Industrial Standard |
| DIN EN 1092-1     | ASME B16.5                              | B2220                        |

### Flange standard DIN EN 1092-1

Endress+Hauser usually supplies flanges with a flat face. This type of flange has not changed much. Therefore, the comparison should be limited to the sealing surfaces only. As the sealing surface marking (Form) has changed, there is a risk of confusion. There are overlaps in the roughness (Rz) between the form C raised face and the new B1 in the range of 40 - 50 µm. Both standards are met within this roughness window. For this reason, Endress+Hauser flanges are labeled with both flange standards. This double marking makes it clear that both standards are met.

| Flanges             | Sealing surface                                                                     | DIN EN 1092-1    |            |            |
|---------------------|-------------------------------------------------------------------------------------|------------------|------------|------------|
|                     |                                                                                     | Form             | Rz (µm)    | Ra (µm)    |
| Without raised face |  | A                | 12.5 - 50  | 3.2 - 12.5 |
| With raised face    |  | B1 <sup>1)</sup> | 12.5 - 50  | 3.2 - 12.5 |
|                     |                                                                                     | B2 <sup>2)</sup> | 3.2 - 12.5 | 0.8 - 3.2  |
| Tongue              |  | C                | 3.2 - 12.5 | 0.8 - 3.2  |
| Groove              |  | D                |            |            |
| Projection          |  | E                | 12.5 - 50  | 3.2 - 12.5 |
| Recess              |  | F                |            |            |
| Projection          |  | H                | 3.2 - 12.5 | 3.2 - 12.5 |
| Recess              |  | G                |            |            |

1) Typically PN2.5 to PN40

2) Typically from PN63

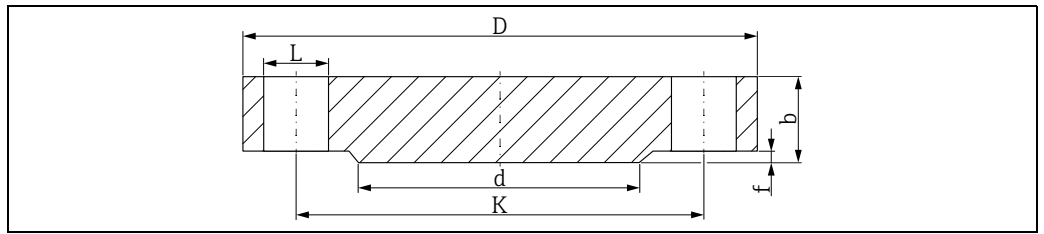
**Height of raised face**

Dimensions in mm (in)

| Standard      | Flanges            | Height of raised face f | Tolerance       |
|---------------|--------------------|-------------------------|-----------------|
| DIN EN 1092-1 | ≤ DN 32            | 2 (0.08)                | 0<br>-1 (-0.04) |
|               | > DN 32 to DN 250  | 3 (0.12)                | 0<br>-2 (-0.08) |
|               | > DN 250 to DN 500 | 4 (0.16)                | 0<br>-3 (-0.12) |
|               | > DN 500           | 5 (0.19)                | 0<br>-4 (-0.16) |
| ASME B16.5    | ≤ Class 300        | 1.6 (0.06)              | ±0.75 (±0.03)   |
|               | ≥ Class 600        | 6.4 (0.25)              | ±0.5 (±0.02)    |
| JIS B2220     | < DN 20            | 1.5 (0.06)<br>0         | -               |
|               | > DN 20 to DN 50   | 2 (0.08)<br>0           |                 |
|               | > DN 50            | 3 (0.12)<br>0           |                 |

## Mechanical construction

### EN flanges (DIN EN 1092-1)



(Raised face B1)

- L* Hole diameter  
*d* Diameter of raised face  
*K* Pitch circle diameter  
*D* Flange diameter  
*b* Total flange thickness  
*f* Raised face height (generally 2 mm (0.08 in))

### PN16

The dimensions in the following tables are in mm (in), unless otherwise specified.

| DN  | D          | b         | K          | d          | L             | approx. kg (lbs) |
|-----|------------|-----------|------------|------------|---------------|------------------|
| 25  | 115 (4.53) | 18 (0.71) | 85 (3.35)  | 68 (2.68)  | 4xØ14 (0.55)  | 1.50 (3.31)      |
| 32  | 140 (5.51) | 18 (0.71) | 100 (3.94) | 78 (3.07)  | 4xØ18 (0.71)  | 2.00 (4.41)      |
| 40  | 150 (5.91) | 18 (0.71) | 110 (4.33) | 88 (3.46)  | 4xØ18 (0.71)  | 2.50 (5.51)      |
| 50  | 165 (6.50) | 18 (0.71) | 125 (4.92) | 102 (4.02) | 4xØ18 (0.71)  | 2.90 (6.39)      |
| 65  | 185 (7.28) | 18 (0.71) | 145 (5.71) | 122 (4.80) | 8xØ18 (0.71)  | 3.50 (7.72)      |
| 80  | 200 (7.87) | 20 (0.79) | 160 (6.30) | 138 (5.43) | 8xØ18 (0.71)  | 4.50 (9.92)      |
| 100 | 220 (8.66) | 20 (0.79) | 180 (7.09) | 158 (6.22) | 8xØ18 (0.71)  | 5.50 (12.13)     |
| 125 | 250 (9.84) | 22 (0.87) | 210 (8.27) | 188 (7.40) | 8xØ18 (0.71)  | 8.00 (17.64)     |
| 150 | 285 (11.2) | 22 (0.87) | 240 (9.45) | 212 (8.35) | 8xØ22 (0.87)  | 10.5 (23.15)     |
| 200 | 340 (13.4) | 24 (0.94) | 295 (11.6) | 268 (10.6) | 12xØ22 (0.87) | 16.5 (36.38)     |
| 250 | 405 (15.9) | 26 (1.02) | 355 (14.0) | 320 (12.6) | 12xØ26 (1.02) | 25.0 (55.13)     |
| 300 | 460 (18.1) | 28 (1.10) | 410 (16.1) | 378 (14.9) | 12xØ26 (1.02) | 35.0 (77.18)     |

### PN25

| DN  | D          | b         | K          | d          | L             | approx. kg (lbs) |
|-----|------------|-----------|------------|------------|---------------|------------------|
| 25  | 115 (4.53) | 18 (0.71) | 85 (3.35)  | 68 (2.68)  | 4xØ14 (0.55)  | 1.50 (3.31)      |
| 32  | 140 (5.51) | 18 (0.71) | 100 (3.94) | 78 (3.07)  | 4xØ18 (0.71)  | 2.00 (4.41)      |
| 40  | 150 (5.91) | 18 (0.71) | 110 (4.33) | 88 (3.46)  | 4xØ18 (0.71)  | 2.50 (5.51)      |
| 50  | 165 (6.50) | 20 (0.79) | 125 (4.92) | 102 (4.02) | 4xØ18 (0.71)  | 3.00 (6.62)      |
| 65  | 185 (7.28) | 22 (0.87) | 145 (5.71) | 122 (4.80) | 8xØ18 (0.71)  | 4.50 (9.92)      |
| 80  | 200 (7.87) | 24 (0.94) | 160 (6.30) | 138 (5.43) | 8xØ18 (0.71)  | 5.50 (12.13)     |
| 100 | 235 (9.25) | 24 (0.94) | 190 (7.48) | 162 (6.38) | 8xØ22 (0.87)  | 7.50 (16.54)     |
| 125 | 270 (10.6) | 26 (1.02) | 220 (8.66) | 188 (7.40) | 8xØ26 (1.02)  | 11.0 (24.26)     |
| 150 | 300 (11.8) | 28 (1.10) | 250 (9.84) | 218 (8.58) | 8xØ26 (1.02)  | 14.5 (31.97)     |
| 200 | 360 (14.2) | 30 (1.18) | 310 (12.2) | 278 (10.9) | 12xØ26 (1.02) | 22.5 (49.61)     |
| 250 | 425 (16.7) | 32 (1.26) | 370 (14.6) | 335 (13.2) | 12xØ30 (1.18) | 33.5 (73.9)      |
| 300 | 485 (19.1) | 34 (1.34) | 430 (16.9) | 395 (15.6) | 16xØ30 (1.18) | 46.5 (102.5)     |

**PN40**

| DN  | D          | b         | K          | d          | L             | approx. kg (lbs) |
|-----|------------|-----------|------------|------------|---------------|------------------|
| 25  | 115 (4.53) | 18 (0.71) | 85 (3.35)  | 68 (2.68)  | 4xØ14 (0.55)  | 1.50 (3.31)      |
| 32  | 140 (5.51) | 18 (0.71) | 100 (3.94) | 78 (3.07)  | 4xØ18 (0.71)  | 2.00 (4.41)      |
| 40  | 150 (5.91) | 18 (0.71) | 110 (4.33) | 88 (3.46)  | 4xØ18 (0.71)  | 2.50 (5.51)      |
| 50  | 165 (6.50) | 20 (0.79) | 125 (4.92) | 102 (4.02) | 4xØ18 (0.71)  | 3.00 (6.62)      |
| 65  | 185 (7.28) | 22 (0.87) | 145 (5.71) | 122 (4.80) | 8xØ18 (0.71)  | 4.50 (9.92)      |
| 80  | 200 (7.87) | 24 (0.94) | 160 (6.30) | 138 (5.43) | 8xØ18 (0.71)  | 5.50 (12.13)     |
| 100 | 235 (9.25) | 24 (0.94) | 190 (7.48) | 162 (6.38) | 8xØ22 (0.87)  | 7.50 (16.54)     |
| 125 | 270 (10.6) | 26 (1.02) | 220 (8.66) | 188 (7.40) | 8xØ26 (1.02)  | 11.0 (24.26)     |
| 150 | 300 (11.8) | 28 (1.10) | 250 (9.84) | 218 (8.58) | 8xØ26 (1.02)  | 14.5 (31.97)     |
| 200 | 375 (14.8) | 36 (1.42) | 320 (12.6) | 285 (11.2) | 12xØ30 (1.18) | 29.0 (63.95)     |
| 250 | 450 (17.7) | 38 (1.50) | 385 (15.2) | 345 (13.6) | 12xØ33 (1.30) | 44.5 (98.12)     |
| 300 | 515 (20.3) | 42 (1.65) | 450 (17.7) | 410 (16.1) | 16xØ33 (1.30) | 64.0 (141.1)     |

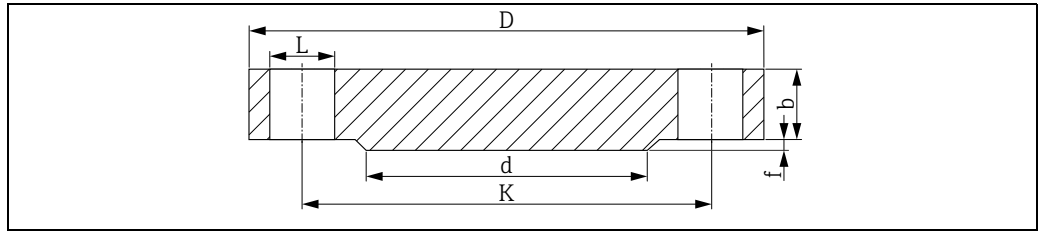
**PN63**

| DN  | D          | b         | K          | d          | L             | approx. kg (lbs) |
|-----|------------|-----------|------------|------------|---------------|------------------|
| 25  | 140 (5.51) | 24 (0.94) | 100 (3.94) | 68 (2.68)  | 4xØ18 (0.71)  | 2.50 (5.51)      |
| 32  | 155 (6.10) | 24 (0.94) | 110 (4.33) | 78 (3.07)  | 4xØ22 (0.87)  | 3.50 (7.72)      |
| 40  | 170 (6.69) | 26 (1.02) | 125 (4.92) | 88 (3.46)  | 4xØ22 (0.87)  | 4.50 (9.92)      |
| 50  | 180 (7.09) | 26 (1.02) | 135 (5.31) | 102 (4.02) | 4xØ22 (0.87)  | 5.00 (11.03)     |
| 65  | 205 (8.07) | 26 (1.02) | 160 (6.30) | 122 (4.80) | 8xØ22 (0.87)  | 6.00 (13.23)     |
| 80  | 215 (8.46) | 28 (1.10) | 170 (6.69) | 138 (5.43) | 8xØ22 (0.87)  | 7.50 (16.54)     |
| 100 | 250 (9.84) | 30 (1.18) | 200 (7.87) | 162 (6.38) | 8xØ26 (1.02)  | 10.5 (23.15)     |
| 125 | 295 (11.6) | 34 (1.34) | 240 (9.45) | 188 (7.40) | 8xØ30 (1.18)  | 16.5 (36.38)     |
| 150 | 345 (13.6) | 36 (1.42) | 280 (11.0) | 218 (8.58) | 8xØ33 (1.30)  | 24.5 (54.02)     |
| 200 | 415 (16.3) | 42 (1.65) | 345 (13.6) | 285 (11.2) | 12xØ36 (1.42) | 40.5 (89.3)      |
| 250 | 470 (18.5) | 46 (1.81) | 400 (15.7) | 345 (13.6) | 12xØ36 (1.42) | 58.0 (127.9)     |
| 300 | 530 (20.9) | 52 (2.05) | 460 (18.1) | 410 (16.1) | 16xØ36 (1.42) | 83.5 (184.1)     |

**PN100**

| DN  | D          | b         | K          | d          | L             | approx. kg (lbs) |
|-----|------------|-----------|------------|------------|---------------|------------------|
| 25  | 140 (5.51) | 24 (0.94) | 100 (3.94) | 68 (2.68)  | 4xØ18 (0.71)  | 2.50 (5.51)      |
| 32  | 155 (6.10) | 24 (0.94) | 110 (4.33) | 78 (3.07)  | 4xØ22 (0.87)  | 3.50 (7.72)      |
| 40  | 170 (6.69) | 26 (1.02) | 125 (4.92) | 88 (3.46)  | 4xØ22 (0.87)  | 4.50 (9.92)      |
| 50  | 195 (7.68) | 28 (1.10) | 145 (5.71) | 102 (4.02) | 4xØ26 (1.02)  | 6.00 (13.23)     |
| 65  | 220 (8.66) | 30 (1.18) | 170 (6.69) | 122 (4.80) | 8xØ26 (1.02)  | 8.00 (17.64)     |
| 80  | 230 (9.06) | 32 (1.26) | 180 (7.09) | 138 (5.43) | 8xØ26 (1.02)  | 9.50 (20.95)     |
| 100 | 265 (10.4) | 36 (1.42) | 210 (8.27) | 162 (6.38) | 8xØ30 (1.18)  | 14.0 (30.87)     |
| 125 | 315 (12.4) | 40 (1.57) | 250 (9.84) | 188 (7.40) | 8xØ33 (1.30)  | 22.5 (49.61)     |
| 150 | 355 (14.0) | 44 (1.73) | 290 (11.4) | 218 (8.58) | 12xØ33 (1.30) | 30.5 (67.25)     |
| 200 | 430 (16.9) | 52 (2.05) | 360 (14.2) | 285 (11.2) | 12xØ36 (1.42) | 54.5 (120.2)     |
| 250 | 505 (19.9) | 60 (2.36) | 430 (16.9) | 345 (13.6) | 12xØ39 (1.54) | 87.5 (192.9)     |
| 300 | 585 (23.0) | 68 (2.68) | 500 (19.7) | 410 (16.1) | 16xØ42 (1.65) | 131.5 (289.9)    |

## ASME flanges (ASME B16.5)



A0029175

(Raised face RF)

*L* Hole diameter*d* Diameter of raised face*K* Pitch circle diameter*D* Flange diameter*b* Total flange thickness*f* Raised face height Class 150/300: 1.6 mm (0.06 in) or  
from Class 600: 6.4 mm (0.25 in)The surface finish of the sealing surface is  $Ra \leq 3.2 - 6.3 \mu\text{m}$  ( $Ra \leq 126 - 248 \mu\text{in}$ ).

## Class 150

The dimensions in the following tables are in mm (in), unless otherwise specified.

| NPS<br>(Nominal<br>pipe size) | D            | b           | K            | d            | L               | approx. kg<br>(lbs) |
|-------------------------------|--------------|-------------|--------------|--------------|-----------------|---------------------|
| 1"                            | 108.0 (4.25) | 14.2 (0.56) | 79.2 (3.12)  | 50.8 (2.00)  | 4xØ15.7 (0.62)  | 0.86 (1.9)          |
| 1¼"                           | 117.3 (4.62) | 15.7 (0.62) | 88.9 (3.50)  | 63.5 (2.50)  | 4xØ15.7 (0.62)  | 1.17 (2.58)         |
| 1½"                           | 127.0 (5.00) | 17.5 (0.69) | 98.6 (3.88)  | 73.2 (2.88)  | 4xØ15.7 (0.62)  | 1.53 (3.37)         |
| 2"                            | 152.4 (6.00) | 19.1 (0.75) | 120.7 (4.75) | 91.9 (3.62)  | 4xØ19.1 (0.75)  | 2.42 (5.34)         |
| 2½"                           | 177.8 (7.00) | 22.4 (0.88) | 139.7 (5.50) | 104.6 (4.12) | 4xØ19.1 (0.75)  | 3.94 (8.69)         |
| 3"                            | 190.5 (7.50) | 23.9 (0.94) | 152.4 (6.00) | 127.0 (5.00) | 4xØ19.1 (0.75)  | 4.93 (10.87)        |
| 3½"                           | 215.9 (8.50) | 23.9 (0.94) | 177.8 (7.00) | 139.7 (5.50) | 8xØ19.1 (0.75)  | 6.17 (13.60)        |
| 4"                            | 228.6 (9.00) | 23.9 (0.94) | 190.5 (7.50) | 157.2 (6.19) | 8xØ19.1 (0.75)  | 7.00 (15.44)        |
| 5"                            | 254.0 (10.0) | 23.9 (0.94) | 215.9 (8.50) | 185.7 (7.31) | 8xØ22.4 (0.88)  | 8.63 (19.03)        |
| 6"                            | 279.4 (11.0) | 25.4 (1.00) | 241.3 (9.50) | 215.9 (8.50) | 8xØ22.4 (0.88)  | 11.3 (24.92)        |
| 8"                            | 342.9 (13.5) | 28.4 (1.12) | 298.5 (11.8) | 269.7 (10.6) | 8xØ22.4 (0.88)  | 19.6 (43.22)        |
| 10"                           | 406.4 (16.0) | 30.2 (1.19) | 362.0 (14.3) | 323.8 (12.7) | 12xØ25.4 (1.00) | 28.8 (63.50)        |

## Class 300

| NPS<br>(Nominal<br>pipe size) | D            | b           | K            | d            | L               | approx. kg<br>(lbs) |
|-------------------------------|--------------|-------------|--------------|--------------|-----------------|---------------------|
| 1"                            | 124.0 (4.88) | 17.5 (0.69) | 88.9 (3.50)  | 50.8 (2.00)  | 4xØ19.1 (0.75)  | 1.39 (3.06)         |
| 1¼"                           | 133.4 (5.25) | 19.1 (0.75) | 98.6 (3.88)  | 63.5 (2.50)  | 4xØ19.1 (0.75)  | 1.79 (3.95)         |
| 1½"                           | 155.4 (6.12) | 20.6 (0.81) | 114.3 (4.50) | 73.2 (2.88)  | 4xØ22.4 (0.88)  | 2.66 (5.87)         |
| 2"                            | 165.1 (6.50) | 22.4 (0.88) | 127.0 (5.00) | 91.9 (3.62)  | 8xØ19.1 (0.75)  | 3.18 (7.01)         |
| 2½"                           | 190.5 (7.50) | 25.4 (1.00) | 149.4 (5.88) | 104.6 (4.12) | 8xØ22.4 (0.88)  | 4.85 (10.69)        |
| 3"                            | 209.5 (8.25) | 28.4 (1.12) | 168.1 (6.62) | 127.0 (5.00) | 8xØ22.4 (0.88)  | 6.81 (15.02)        |
| 3½"                           | 228.6 (9.00) | 30.2 (1.19) | 184.2 (7.25) | 139.7 (5.50) | 8xØ22.4 (0.88)  | 8.71 (19.21)        |
| 4"                            | 254.0 (10.0) | 31.8 (1.25) | 200.2 (7.88) | 157.2 (6.19) | 8xØ22.4 (0.88)  | 11.5 (25.36)        |
| 5"                            | 279.4 (11.0) | 35.1 (1.38) | 235.0 (9.25) | 185.7 (7.31) | 8xØ22.4 (0.88)  | 15.6 (34.4)         |
| 6"                            | 317.5 (12.5) | 36.6 (1.44) | 269.7 (10.6) | 215.9 (8.50) | 12xØ22.4 (0.88) | 20.9 (46.08)        |
| 8"                            | 381.0 (15.0) | 41.1 (1.62) | 330.2 (13.0) | 269.7 (10.6) | 12xØ25.4 (1.00) | 34.3 (75.63)        |
| 10"                           | 444.5 (17.5) | 47.8 (1.88) | 387.4 (15.3) | 323.8 (12.7) | 16xØ28.4 (1.12) | 53.3 (117.5)        |

## Class 600

| NPS<br>(Nominal<br>pipe size) | D             | b           | K            | d            | L               | approx. kg<br>(lbs) |
|-------------------------------|---------------|-------------|--------------|--------------|-----------------|---------------------|
| 1"                            | 124.0 (4.88)  | 17.5 (0.69) | 88.9 (3.50)  | 50.8 (2.00)  | 4xØ19.1 (0.75)  | 1.60 (3.53)         |
| 1¼"                           | 133.4 (5.25)  | 20.6 (0.81) | 98.6 (3.88)  | 63.5 (2.50)  | 4xØ19.1 (0.75)  | 2.23 (4.92)         |
| 1½"                           | 155.4 (6.12)  | 22.4 (0.88) | 114.3 (4.50) | 73.2 (2.88)  | 4xØ22.4 (0.88)  | 3.25 (7.17)         |
| 2"                            | 165.1 (6.50)  | 25.4 (1.00) | 127.0 (5.00) | 91.9 (3.62)  | 8xØ19.1 (0.75)  | 4.15 (9.15)         |
| 2½"                           | 190.5 (7.50)  | 28.4 (1.12) | 149.4 (5.88) | 104.6 (4.12) | 8xØ22.4 (0.88)  | 6.13 (13.52)        |
| 3"                            | 209.5 (8.25)  | 31.8 (1.25) | 168.1 (6.62) | 127.0 (5.00) | 8xØ22.4 (0.88)  | 8.44 (18.61)        |
| 3½"                           | 228.6 (9.00)  | 35.1 (1.38) | 184.2 (7.25) | 139.7 (5.50) | 8xØ25.4 (1.00)  | 11.0 (24.26)        |
| 4"                            | 273.1 (10.8)  | 38.1 (1.50) | 215.9 (8.50) | 157.2 (6.19) | 8xØ25.4 (1.00)  | 17.3 (38.15)        |
| 5"                            | 330.2 (13.00) | 44.5 (1.75) | 266.7 (10.5) | 185.7 (7.31) | 8xØ28.4 (1.12)  | 29.4 (64.83)        |
| 6"                            | 355.6 (14.00) | 47.8 (1.88) | 292.1 (11.5) | 215.9 (8.50) | 12xØ28.4 (1.12) | 36.1 (79.6)         |
| 8"                            | 419.1 (16.50) | 55.6 (2.19) | 349.3 (13.8) | 269.7 (10.6) | 12xØ31.8 (1.25) | 58.9 (129.9)        |
| 10"                           | 508.0 (20.00) | 63.5 (2.50) | 431.8 (17.0) | 323.8 (12.7) | 16xØ35.1 (1.38) | 97.5 (214.9)        |

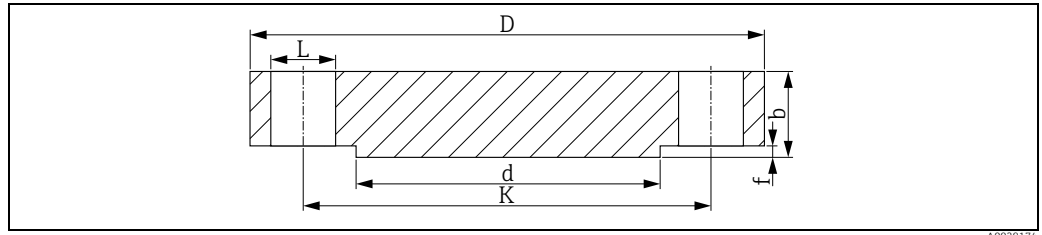
## Class 900

| NPS<br>(Nominal<br>pipe size) | D             | b           | K            | d            | L               | approx. kg<br>(lbs) |
|-------------------------------|---------------|-------------|--------------|--------------|-----------------|---------------------|
| 1"                            | 149.4 (5.88)  | 28.4 (1.12) | 101.6 (4.00) | 50.8 (2.00)  | 4xØ25.4 (1.00)  | 3.57 (7.87)         |
| 1¼"                           | 158.8 (6.25)  | 28.4 (1.12) | 111.3 (4.38) | 63.5 (2.50)  | 4xØ25.4 (1.00)  | 4.14 (9.13)         |
| 1½"                           | 177.8 (7.00)  | 31.8 (1.25) | 124.0 (4.88) | 73.2 (2.88)  | 4xØ28.4 (1.12)  | 5.75 (12.68)        |
| 2"                            | 215.9 (8.50)  | 38.1 (1.50) | 165.1 (6.50) | 91.9 (3.62)  | 8xØ25.4 (1.00)  | 10.1 (22.27)        |
| 2½"                           | 244.4 (9.62)  | 41.1 (1.62) | 190.5 (7.50) | 104.6 (4.12) | 8xØ28.4 (1.12)  | 14.0 (30.87)        |
| 3"                            | 241.3 (9.50)  | 38.1 (1.50) | 190.5 (7.50) | 127.0 (5.00) | 8xØ25.4 (1.00)  | 13.1 (28.89)        |
| 4"                            | 292.1 (11.50) | 44.5 (1.75) | 235.0 (9.25) | 157.2 (6.19) | 8xØ31.8 (1.25)  | 26.9 (59.31)        |
| 5"                            | 349.3 (13.8)  | 50.8 (2.00) | 279.4 (11.0) | 185.7 (7.31) | 8xØ35.1 (1.38)  | 36.5 (80.48)        |
| 6"                            | 381.0 (15.00) | 55.6 (2.19) | 317.5 (12.5) | 215.9 (8.50) | 12xØ31.8 (1.25) | 47.4 (104.5)        |
| 8"                            | 469.9 (18.50) | 63.5 (2.50) | 393.7 (15.5) | 269.7 (10.6) | 12xØ38.1 (1.50) | 82.5 (181.9)        |
| 10"                           | 546.1 (21.50) | 69.9 (2.75) | 469.9 (18.5) | 323.8 (12.7) | 16xØ38.1 (1.50) | 122 (269.0)         |

## Class 1500

| NPS<br>(Nominal<br>pipe size) | D             | b            | K            | d            | L               | approx. kg<br>(lbs) |
|-------------------------------|---------------|--------------|--------------|--------------|-----------------|---------------------|
| 1"                            | 149.4 (5.88)  | 28.4 (1.12)  | 101.6 (4.00) | 50.8 (2.00)  | 4xØ25.4 (1.00)  | 3.57 (7.87)         |
| 1¼"                           | 158.8 (6.25)  | 28.4 (1.12)  | 111.3 (4.38) | 63.5 (2.50)  | 4xØ25.4 (1.00)  | 4.14 (9.13)         |
| 1½"                           | 177.8 (7.00)  | 31.8 (1.25)  | 124.0 (4.88) | 73.2 (2.88)  | 4xØ28.4 (1.12)  | 5.75 (12.68)        |
| 2"                            | 215.9 (8.50)  | 38.1 (1.50)  | 165.1 (6.50) | 91.9 (3.62)  | 8xØ25.4 (1.00)  | 10.1 (22.27)        |
| 2½"                           | 244.4 (9.62)  | 41.1 (1.62)  | 190.5 (7.50) | 104.6 (4.12) | 8xØ28.4 (1.12)  | 14.0 (30.87)        |
| 3"                            | 266.7 (10.50) | 47.8 (1.88)  | 203.2 (8.00) | 127.0 (5.00) | 8xØ31.8 (1.25)  | 19.1 (42.12)        |
| 4"                            | 311.2 (12.3)  | 53.8 (2.12)  | 241.3 (9.50) | 157.2 (6.19) | 8xØ35.1 (1.38)  | 29.9 (65.93)        |
| 5"                            | 374.7 (14.8)  | 73.2 (2.88)  | 292.1 (11.5) | 185.7 (7.31) | 8xØ41.1 (1.62)  | 58.4 (128.8)        |
| 6"                            | 393.7 (15.50) | 82.6 (3.25)  | 317.5 (12.5) | 215.9 (8.50) | 12xØ38.1 (1.50) | 71.8 (158.3)        |
| 8"                            | 482.6 (19.00) | 91.9 (3.62)  | 393.7 (15.5) | 269.7 (10.6) | 12xØ44.5 (1.75) | 122 (269.0)         |
| 10"                           | 584.2 (23.00) | 108.0 (4.25) | 482.6 (19.0) | 323.8 (12.7) | 12xØ50.8 (2.00) | 210 (463.0)         |

## JIS flanges (B 2220)



A0029174

(Raised face RF)

L Hole diameter

d Diameter of raised face

K Pitch circle diameter

D Flange diameter

b Total flange thickness

f Raised face height (generally 2 mm (0.08 in))

The surface finish of the sealing surface is  $R_a \leq 3.2 - 6.3 \mu\text{m}$  ( $R_a \leq 126 - 248 \mu\text{in}$ ).

## 10 K

The dimensions in the following tables are in mm (in), unless otherwise specified.

| DN  | D          | b         | K          | d          | L             |
|-----|------------|-----------|------------|------------|---------------|
| 25  | 125 (4.92) | 14 (0.55) | 90 (3.54)  | 67 (2.64)  | 4xØ19 (0.75)  |
| 32  | 135 (5.31) | 16 (0.63) | 100 (3.94) | 76 (2.99)  | 4xØ19 (0.75)  |
| 40  | 140 (5.51) | 16 (0.63) | 105 (4.13) | 81 (3.19)  | 4xØ19 (0.75)  |
| 50  | 155 (6.10) | 16 (0.63) | 120 (4.72) | 96 (3.78)  | 4xØ19 (0.75)  |
| 65  | 175 (6.89) | 18 (0.71) | 140 (5.51) | 116 (4.57) | 4xØ19 (0.75)  |
| 80  | 185 (7.28) | 18 (0.71) | 150 (5.91) | 126 (4.96) | 8xØ19 (0.75)  |
| 100 | 210 (8.27) | 18 (0.71) | 175 (6.89) | 151 (5.94) | 8xØ19 (0.75)  |
| 125 | 250 (9.84) | 20 (0.79) | 210 (8.27) | 182 (7.17) | 8xØ23 (0.91)  |
| 150 | 280 (11.0) | 22 (0.87) | 240 (9.45) | 212 (8.35) | 8xØ23 (0.91)  |
| 200 | 330 (13.0) | 22 (0.87) | 290 (11.4) | 262 (10.3) | 12xØ23 (0.91) |
| 250 | 400 (15.7) | 24 (0.94) | 355 (14.0) | 324 (12.8) | 12xØ25 (0.98) |
| 300 | 445 (17.5) | 24 (0.94) | 400 (15.7) | 368 (14.5) | 16xØ25 (0.98) |

## 20 K

| DN  | D          | b         | K          | d          | L             |
|-----|------------|-----------|------------|------------|---------------|
| 25  | 125 (4.92) | 16 (0.63) | 90 (3.54)  | 67 (2.64)  | 4xØ19 (0.75)  |
| 32  | 135 (5.31) | 18 (0.71) | 100 (3.94) | 76 (2.99)  | 4xØ19 (0.75)  |
| 40  | 140 (5.51) | 18 (0.71) | 105 (4.13) | 81 (3.19)  | 4xØ19 (0.75)  |
| 50  | 155 (6.10) | 18 (0.71) | 120 (4.72) | 96 (3.78)  | 8xØ19 (0.75)  |
| 65  | 175 (6.89) | 20 (0.79) | 140 (5.51) | 116 (4.57) | 8xØ19 (0.75)  |
| 80  | 200 (7.87) | 22 (0.87) | 160 (6.30) | 132 (5.20) | 8xØ23 (0.91)  |
| 100 | 225 (8.86) | 24 (0.94) | 185 (7.28) | 160 (6.30) | 8xØ23 (0.91)  |
| 125 | 270 (10.6) | 26 (1.02) | 225 (8.86) | 195 (7.68) | 8xØ25 (0.98)  |
| 150 | 305 (12.0) | 28 (1.10) | 260 (10.2) | 230 (9.06) | 12xØ25 (0.98) |
| 200 | 350 (13.8) | 30 (1.18) | 305 (12.0) | 275 (10.8) | 12xØ25 (0.98) |
| 250 | 430 (16.9) | 34 (1.34) | 380 (15.0) | 345 (13.6) | 12xØ27 (1.06) |
| 300 | 480 (18.9) | 36 (1.42) | 430 (16.9) | 395 (15.6) | 16xØ27 (1.06) |

**63 K**

| <b>DN</b> | <b>D</b>   | <b>b</b>  | <b>K</b>   | <b>d</b>   | <b>L</b>      |
|-----------|------------|-----------|------------|------------|---------------|
| 25        | 140 (5.51) | 27 (1.06) | 100 (3.94) | 70 (2.76)  | 4xØ23 (0.91)  |
| 32        | 150 (5.91) | 30 (1.18) | 110 (4.33) | 80 (3.15)  | 4xØ23 (0.91)  |
| 40        | 175 (6.89) | 32 (1.26) | 130 (5.12) | 90 (3.54)  | 4xØ25 (0.98)  |
| 50        | 185 (7.28) | 34 (1.34) | 145 (5.71) | 105 (4.13) | 8xØ23 (0.91)  |
| 65        | 220 (8.66) | 38 (1.50) | 175 (6.89) | 130 (5.12) | 8xØ25 (0.98)  |
| 80        | 230 (9.06) | 40 (1.57) | 185 (7.28) | 140 (5.51) | 8xØ25 (0.98)  |
| 100       | 270 (10.6) | 44 (1.73) | 220 (8.66) | 165 (6.50) | 8xØ27 (1.06)  |
| 125       | 325 (12.8) | 50 (1.97) | 265 (10.4) | 200 (7.87) | 8xØ33 (1.30)  |
| 150       | 365 (14.4) | 54 (2.13) | 305 (12.0) | 240 (9.45) | 12xØ33 (1.30) |
| 200       | 425 (16.7) | 60 (2.36) | 360 (14.2) | 290 (11.4) | 12xØ33 (1.30) |
| 250       | 500 (19.7) | 68 (2.68) | 430 (16.9) | 355 (14.0) | 12xØ39 (1.54) |
| 300       | 560 (22.0) | 77 (3.03) | 485 (19.1) | 410 (16.1) | 16xØ39 (1.54) |

## Pressure-temperature dependency

### EN flanges<sup>1)</sup>

| Temperature range                       | Nominal pressure bar (psi) |            |            |            |              |
|-----------------------------------------|----------------------------|------------|------------|------------|--------------|
|                                         | PN16                       | PN25       | PN40       | PN63       | PN100        |
| –10 °C to +50 °C<br>(+14 °F to +122 °F) | 16.0 (232)                 | 25.0 (362) | 40.0 (580) | 63.0 (913) | 100.0 (1450) |
| 50 °C (122 °F)                          | 15.5 (225)                 | 24.3 (352) | 38.9 (564) | 61.3 (889) | 97.3 (1411)  |
| 100 °C (212 °F)                         | 15.1 (219)                 | 23.6 (342) | 37.9 (550) | 59.7 (866) | 94.7 (1373)  |
| 150 °C (302 °F)                         | 13.7 (199)                 | 21.5 (312) | 34.4 (499) | 54.3 (787) | 86.1 (1248)  |
| 200 °C (392 °F)                         | 12.7 (184)                 | 19.8 (287) | 31.8 (461) | 50.1 (726) | 79.5 (1153)  |
| 250 °C (482 °F)                         | 11.9 (173)                 | 18.6 (270) | 29.9 (434) | 47.1 (683) | 74.7 (1083)  |
| 300 °C (572 °F)                         | 11.0 (159)                 | 17.2 (249) | 27.6 (400) | 43.5 (631) | 69.0 (1000)  |
| 350 °C (662 °F)                         | 10.5 (152)                 | 16.5 (239) | 26.4 (383) | 41.7 (605) | 66.1 (958)   |
| 400 °C (752 °F)                         | 10.2 (148)                 | 16.0 (232) | 25.7 (373) | 40.1 (580) | 64.2 (931)   |

### ASME flanges<sup>1)</sup>

| Temperature range                       | Nominal pressure bar (psi) |            |             |              |              |
|-----------------------------------------|----------------------------|------------|-------------|--------------|--------------|
|                                         | Class 150                  | Class 300  | Class 600   | Class 900    | Class 1500   |
| –29 °C to +38 °C<br>(–20 °F to +100 °F) | 19.0 (275)                 | 49.6 (719) | 99.3 (1440) | 148.9 (2159) | 248.2 (3599) |
| 50 °C (122 °F)                          | 18.4 (267)                 | 48.1 (697) | 96.2 (1395) | 144.3 (2092) | 240.6 (3489) |
| 100 °C (212 °F)                         | 16.2 (235)                 | 42.2 (612) | 84.4 (1224) | 126.6 (1836) | 211.0 (3059) |
| 150 °C (302 °F)                         | 14.8 (215)                 | 38.5 (558) | 77.0 (1116) | 115.5 (1675) | 192.5 (2791) |
| 200 °C (392 °F)                         | 13.7 (199)                 | 35.7 (518) | 71.3 (1034) | 107.0 (1551) | 178.3 (2588) |
| 250 °C (482 °F)                         | 12.1 (175)                 | 33.4 (484) | 66.8 (969)  | 100.1 (1451) | 166.9 (2420) |
| 300 °C (572 °F)                         | 10.2 (148)                 | 31.6 (458) | 63.2 (916)  | 94.9 (1376)  | 158.1 (2292) |
| 325 °C (617 °F)                         | 9.3 (135)                  | 30.9 (448) | 61.8 (896)  | 92.7 (1344)  | 154.4 (2239) |
| 350 °C (662 °F)                         | 8.4 (122)                  | 30.3 (439) | 60.7 (880)  | 91.0 (1319)  | 151.6 (2189) |
| 375 °C (707 °F)                         | 7.4 (107)                  | 29.9 (434) | 59.8 (867)  | 89.6 (1299)  | 149.4 (2166) |
| 400 °C (752 °F)                         | 6.5 (94)                   | 29.4 (426) | 58.9 (854)  | 88.3 (1280)  | 147.2 (2134) |

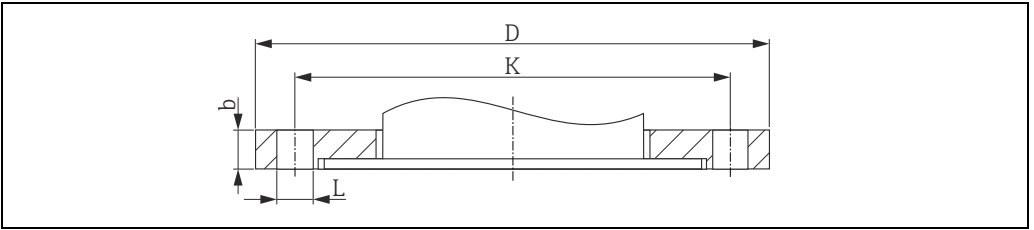
### JIS flanges<sup>1)</sup>

| Temperature range     | Nominal pressure bar (psi) |            |                       |            |
|-----------------------|----------------------------|------------|-----------------------|------------|
|                       | 10 K                       | 20 K       |                       |            |
|                       | for all flanges            | to DN 125  | from DN 150 to DN 250 | DN 300     |
| up to 120 °C (248 °F) | 14 (203.0)                 | 34 (493.0) | 20 (290.0)            | 20 (290.0) |
| 220 °C (428 °F)       | 12 (174.0)                 | 31 (449.5) | 20 (290.0)            | -          |
| 300 °C (572 °F)       | 10 (145.0)                 | 29 (420.5) | 19 (275.5)            | -          |
| 350 °C (662 °F)       | -                          | 26 (377.0) | 17 (246.5)            | -          |
| 400 °C (752 °F)       | -                          | 23 (333.5) | 17 (246.5)            | -          |
| 425 °C (797 °F)       | -                          | 20 (290.0) | 17 (246.5)            | -          |

1) With regard to their stability-temperature property, the materials 1.4404 and 1.4435 are grouped together under 13E0 in DIN EN 1092-1 Tab.18 and under 023b in JIS B2220:Tab. 5. The ASME flanges are dual rated flanges (316/316L) and classified under Tab. 2-2.2 in ASME B16.5.

## Slip-on flange FAU80

A slip-on flange can be flush mounted on a sensor (FDU91F, FDU80F, FDU81F). Flanges in polypropylene (PP) should only be used with pressures up to 1.5 bar<sub>abs</sub> (22 psi), flanges in 316L also above.



Slip-on flange  
D Flange diameter  
K Pitch circle diameter  
b Overall flange thickness  
L Hole diameter

A0029186

### FAU80 version with slip-on flange

### Ordering information

| 010 | Process connection |                                  |
|-----|--------------------|----------------------------------|
|     | AA                 | 3" 150 lbs FF, flange ANSI B16.5 |
|     | AH                 | 4" 150 lbs FF, flange ANSI B16.5 |
|     | CA                 | DN 80 PN16 A, flange EN 1092-1   |
|     | CH                 | DN 100 PN16 A, flange EN 1092-1  |
|     | KA                 | 10K 80A FF, flange JIS B2220     |
|     | KH                 | 10K 100A FF, flange JIS B2220    |
|     | YY                 | Special version, to be specified |
| 020 | Flange material    |                                  |
|     | J                  | 316L                             |
|     | P                  | PPs, max. 1.5 bar abs            |
|     | Y                  | Special version, to be specified |

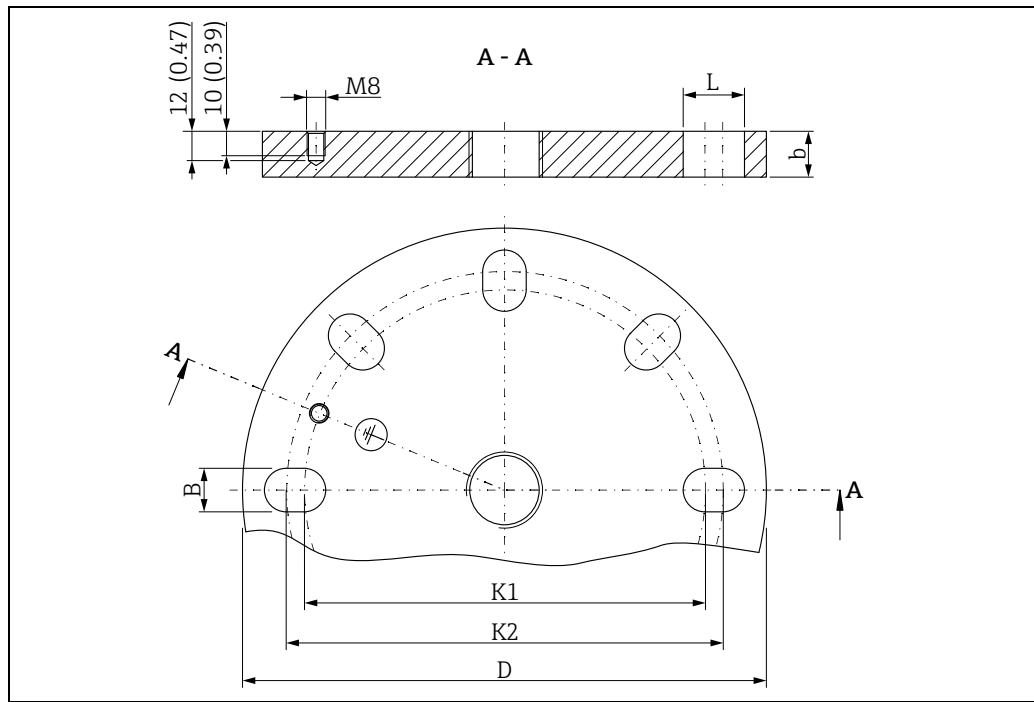
The options entered make up the order code:

|        | 010 | 020 |
|--------|-----|-----|
| FAU80- |     |     |

## FAX50 screw-in flange

The FAX50 screw-in flange is a universal flange which can be used for all three standards (DIN - ASME - JIS) owing to its min./max. dimensions.

### FAX50 universal flange DIN - ASME - JIS



A0045621

Dimensions in mm (in)

L Hole diameter  
K1, K2 Pitch circle diameter  
D Flange diameter  
b Overall flange thickness  
B Slotted hole (width)



M8 thread, 10 mm + 2 mm deep, centered between 2 holes  
Is manufactured from steel or 316L for all FAX50 flanges and UNI flanges.

G 3/4, NPT 3/4

The dimensions in the following tables are in mm (in), unless otherwise specified.

| DN  | D           | b            | L               | K1         | K2          | approx. kg (lbs) |      |                 |
|-----|-------------|--------------|-----------------|------------|-------------|------------------|------|-----------------|
|     |             |              |                 |            |             | PP               | PVDF | 316L            |
| 50  | 165 (6.50)  | 20<br>(0.79) | 4xØ19<br>(0.75) | 120 (4.72) | 125 (4.92)  | –                | –    | 3.11<br>(6.86)  |
| 80  | 200 (7.87)  |              | 8xØ19<br>(0.75) | 150 (5.91) | 160 (6.30)  | –                | –    | 4.37<br>(9.64)  |
| 100 | 228.6 (9.0) |              | 8xØ19<br>(0.75) | 175 (6.89) | 190.5 (7.5) | –                | –    | 5.79<br>(12.77) |

**G 1, NPT 1**

| DN                | D               | b            | L                | K1         | K2          | approx. kg (lbs) |                |                 |
|-------------------|-----------------|--------------|------------------|------------|-------------|------------------|----------------|-----------------|
|                   |                 |              |                  |            |             | PP               | PVDF           | 316L            |
| 80                | 200 (7.87)      | 20<br>(0.79) | 8xØ19<br>(0.75)  | 150 (5.91) | 160 (6.30)  | 0.50<br>(1.10)   | 0.97<br>(2.14) | 4.34<br>(9.57)  |
| 100               | 228.6 (9.0)     |              | 8xØ19<br>(0.75)  | 175 (6.89) | 190.5 (7.5) | 0.66<br>(1.46)   | 1.29<br>(2.84) | 5.75<br>(12.68) |
| 150               | 285 (11.2)      |              | 8xØ23<br>(0.91)  | 240 (9.45) | 241.3 (9.5) | 1.09<br>(2.40)   | 2.12<br>(4.67) | 9.44<br>(20.82) |
| 200 <sup>1)</sup> | 340 (13.4)      |              | 12xØ23<br>(0.91) | 290 (11.4) | 295 (11.6)  | 1.53<br>(3.37)   | –              | –               |
| 250               | 406.4<br>(16.0) |              | 12xØ26<br>(1.02) | 355 (14.0) | 362 (14.3)  | 2.20<br>(4.85)   | –              | –               |

1) Only for DIN and JIS!

**Exception: G 1**

| NPS<br>(Nominal<br>pipe size) | D               | b            | L                 | K1              | K2              | approx. kg (lbs) |      |      |
|-------------------------------|-----------------|--------------|-------------------|-----------------|-----------------|------------------|------|------|
| ASME                          |                 |              |                   |                 |                 | PP               | PVDF | 316L |
| 8"                            | 342.9<br>(13.5) | 20<br>(0.79) | 8xØ22.5<br>(0.89) | 298.5<br>(11.8) | 298.5<br>(11.8) | 1.61<br>(3.55)   | –    | –    |

**G 1½, NPT 1½**

| DN  | D           | b            | L               | K1         | K2          | approx. kg (lbs) |                |                 |
|-----|-------------|--------------|-----------------|------------|-------------|------------------|----------------|-----------------|
|     |             |              |                 |            |             | PP               | PVDF           | 316L            |
| 50  | 165 (6.50)  | 20<br>(0.79) | 4xØ19<br>(0.75) | 120 (4.72) | 125 (4.92)  | 0.34<br>(0.75)   | 0.67<br>(1.48) | 2.97<br>(6.55)  |
| 80  | 200 (7.87)  |              | 8xØ19<br>(0.75) | 150 (5.91) | 160 (6.30)  | 0.49<br>(1.08)   | 0.95<br>(2.09) | 4.24<br>(9.35)  |
| 100 | 228.6 (9.0) |              | 8xØ19<br>(0.75) | 175 (6.89) | 190.5 (7.5) | 0.65<br>(1.43)   | 1.27<br>(2.80) | 5.65<br>(12.46) |
| 150 | 285 (11.2)  |              | 8xØ23<br>(0.91) | 240 (9.45) | 241.3 (9.5) | 1.08<br>(2.38)   | 2.09<br>(4.61) | 9.34<br>(20.59) |

**G 2, NPT 2**

| DN  | D           | b            | L               | K1         | K2          | approx. kg (lbs) |                |                 |
|-----|-------------|--------------|-----------------|------------|-------------|------------------|----------------|-----------------|
|     |             |              |                 |            |             | PP               | PVDF           | 316L            |
| 50  | 165 (6.50)  | 20<br>(0.79) | 4xØ19<br>(0.75) | 120 (4.72) | 125 (4.92)  | 0.33<br>(0.73)   | 0.63<br>(1.39) | 2.83<br>(6.24)  |
| 80  | 200 (7.87)  |              | 8xØ19<br>(0.75) | 150 (5.91) | 160 (6.30)  | 0.47<br>(1.04)   | 0.92<br>(2.03) | 4.10<br>(9.04)  |
| 100 | 228.6 (9.0) |              | 8xØ19<br>(0.75) | 175 (6.89) | 190.5 (7.5) | 0.64<br>(1.41)   | 1.24<br>(2.73) | 5.51<br>(12.15) |
| 150 | 285 (11.2)  |              | 8xØ23<br>(0.91) | 240 (9.45) | 241.3 (9.5) | 1.06<br>(2.34)   | 2.06<br>(4.54) | 9.20<br>(20.29) |



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