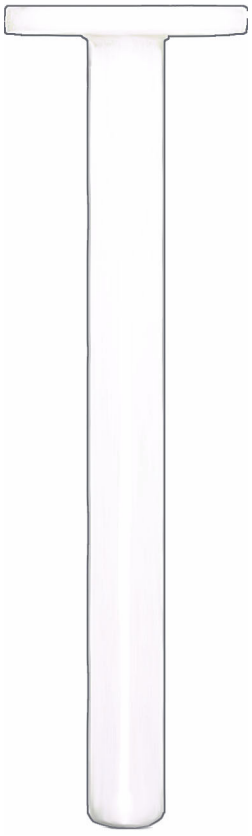
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Technical Information
Protective Sheath TA730

Protection of the primary thermowell



Thermowell cover made of corrosion-resistant material for thermometers or thermowells with a flange process connection

Applications

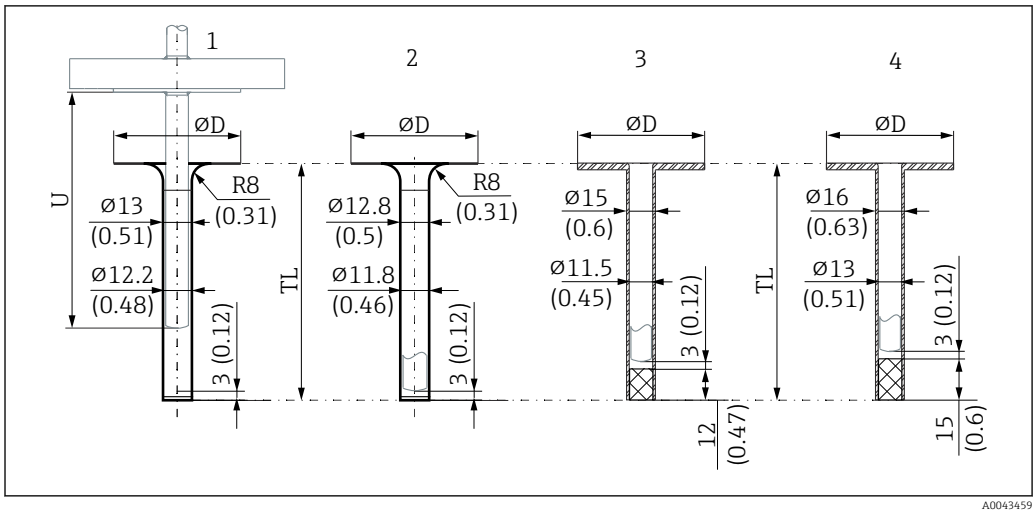
Applications in the chemical industry involving aggressive process media

Your benefits

- Protection against corrosion
- Available in PTFE, PVDF, tantalum or titanium

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Mechanical construction



1 Dimensions of the protective sheath in mm (in) - different versions depending on the coating material

1 Tantalum
2 Titanium
3 PTFE
4 PVDF
ØD Diameter of sealing surface
U Thermowell immersion length
TL Total length of protective sheath

Formula for calculating the total length
- Titanium or tantalum: TL = U + 3 mm (0.12 in)
- PTFE: TL = U + 15 mm (0.6 in)
- PVDF: TL = U + 18 mm (0.71 in)

Flanged version	Ø sealing surface D in mm (in)
DN25 PN10, PN16, PN25, PN40, PN64, PN100, PN160, PN250, PN320, PN400	68 (2.68)
DN40 PN10, PN16, PN25, PN40, PN64, PN100, PN160, PN320, PN400	88 (3.46)
DN50 PN10, PN16, PN25, PN40, PN64, PN100, PN160, PN250, PN320, PN400	102 (4.02)

Maximum process pressure values for the individual materials depending on the process temperature. Data in bar (PSI)

Temperature in °C (°F)	Tantalum	Titanium	PTFE	PVDF
−251 (−420)	-	-	80 (1160.3)	-
−200 (−328)	130 (1885.5)	-	69 (1000.7)	-
−100 (−148)	75 (1087.8)	65 (942.7)	46 (667.2)	-
0 (+32)	60 (870.2)	65 (942.7)	7.5 (108.8)	-
+20 (+68)	57 (826.7)	65 (942.7)	6 (87)	6.5 (94.3)
+50 (+122)	55 (797.7)	58 (841.2)	3.75 (54.4)	3.5 (50.8)
+100 (+212)	49 (710.7)	51 (739.7)	2.5 (36.3)	1 (14.5)
+200 (+392)	40 (580.2)	33 (478.6)	1.1 (16)	-
+260 (+500)	37 (536.6)	24 (348.1)	0.9 (13.1)	-
+300 (+572)	35 (507.6)	19.5 (282.8)	-	-

Temperature in °C (°F)	Tantalum	Titanium	PTFE	PVDF
+320 (+608)	34 (493.1)	18 (261.1)	-	-
+500 (+932)	29 (420.6)	-	-	-
+750 (+1382)	23 (333.6)	-	-	-
+1000 (+1832)	16.5 (239.3)	-	-	-

Use within a vacuum is not recommended.

Response times
Depending on the material, the protective sheath restricts heat transfer considerably and results in significantly higher response times. Response times t_{90} of several minutes can be expected.

Ordering information

Detailed ordering information is available from your nearest sales organization www.addresses.endress.com or in the Product Configurator at www.endress.com:

1. Select the product using the filters and search field.
2. Open the product page.
3. Select **Configuration**.

Product Configurator - the tool for individual product configuration
- Up-to-the-minute configuration data
- Depending on the device: Direct input of measuring point-specific information such as 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

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