



Technical Information

Liquiline System CAT17

Control of sample preparation by the
Liquiline System CA80



Automatic sample preparation system for supplying process measuring devices with filtered samples from pressure pipes

Application

The Liquiline System CAT17 enables the fully automatic collection and filtration of aqueous samples. The automatic air backflushing function extends the manual cleaning intervals of the integrated filter.

The device is designed for use in the following applications:

- Influent from municipal and industrial WWTPs
- Effluent from municipal and industrial WWTPs

Your benefits

- Robust and reliable:
Compressed air backflushing function of the filter
- Simple and user-friendly:
Control via a CA80 analyzer
- Cleaning and maintenance:
Tool-free exchange of the filter

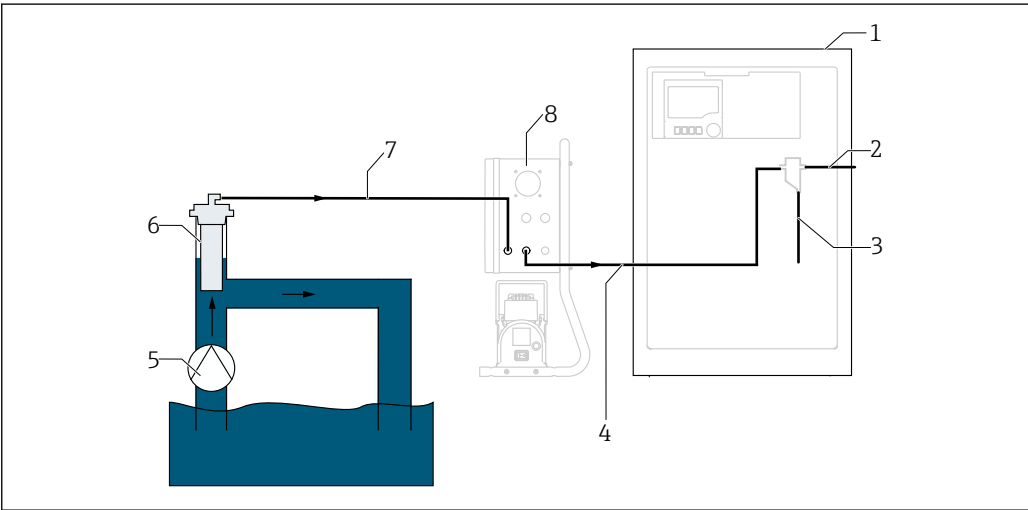
Table of contents

Function and system design	3
Function	3
Measuring system	3
Installation examples	3
Functioning with control via Liquiline System CA80 analyzer	3
Power supply	4
Electrical connection	4
Supply voltage	4
Power consumption	4
Performance characteristics	4
Suction height of peristaltic pump	4
Hose length, filter to pump	4
Hose length, pump to analyzer	4
Cleaning solution requirements	4
Installation	4
Installation instructions	4
Environment	4
Ambient temperature range	4
Storage temperature	4
Humidity	4
Degree of protection	5
Electrical safety	5
Degree of contamination	5
Process	5
Sample temperature	5
Process pressure	5
Process connection	5
Mechanical construction	5
Dimensions	5
Weight	5
Materials	5
Certificates and approvals	6
Ordering information	6
Product page	6
Product Configurator	6
Scope of delivery	6

Function and system design

Function	TheLiquiline System CAT17 enables the fully automatic collection and filtration of aqueous samples. A vacuum pump draws the sample through the filter. The filtrate line is connected to the collecting vessel of the downstream analyzer.
Measuring system	A complete sample conditioning system comprises: ■ Liquiline System CAT17 including filter and backflush pump ■ Sample hose to analyzer ■ Power supply and communication cables to the analyzer

Installation examples



- 1 CAT17 connected to Liquiline System CA80
- 1 Liquiline System CA80
 - 2 Sample collecting vessel overflow
 - 3 Sample
 - 4 Sample hose to analyzer
 - 5 Process pump provided by customer
 - 6 Filter with process connection
 - 7 Sample hose to filter
 - 8 Liquiline system CAT17

Functioning with control via Liquiline System CA80 analyzer	The Liquiline System CAT17 sample preparation system enables automatic backflushing of the filter and the configuration of different backflush settings, controlled via the Liquiline System CA80. All media-bearing parts can be removed and cleaned without tools.
---	--

Power supply

Electrical connection	--> For a detailed wiring diagram, see Operating Instructions for the Liquiline System CAT17
Supply voltage	220 V AC, 50 Hz
	NOTICE The device does not have a power switch ▶ The device starts as soon as it is supplied with power. ▶ The ground connection must be made before all other connections. Danger may arise if the protective ground is disconnected.  The Liquiline System CAT17 is suitable only for connection to a CA80 analyzer. The use of other voltage sources is not permitted.
Power consumption	With auxiliary pump 242.9 VA Without auxiliary pump 12.9 VA

Performance characteristics

Suction height of peristaltic pump	Max. 3 m (10 ft)
Hose length, filter to pump	Max. 4 m (13 ft)
Hose length, pump to analyzer	max. 2.5 (8 ft)
Cleaning solution requirements	The Liquiline System CAT17 causes a slight increase in the consumption of cleaning solution. With a standard cleaning interval of 48 hours, the solution will last 97 days.

Installation

Installation instructions	Mounting conditions Note the following when erecting the device: ■ Make sure that the fluid can drain freely. ■ Install in an ascending pipe or horizontal pipe. ■ Do not install in a vertical pipe. ■ Avoid siphoning effects in the sample line.
----------------------------------	---

Environment

Ambient temperature range	0 to 40 °C (32 to 104 °F)
Storage temperature	-20 to 60 °C (-4 to 140 °F)
Humidity	10 to 95 %, non-condensating

Degree of protection	IP54 (only if socket cover is closed and engaged) Indoor use
Electrical safety	GB 4793.1, protection class I Low voltage: overvoltage category II Environment < 2000 m (< 6562 ft) above MSL
Degree of contamination	The product is suitable for pollution degree 2.

Process

Sample temperature	4 to 40 °C (39 to 104 °F)
Process pressure	0.5 to 4 bar (7.3 to 58 psi)
Process connection	The sample preparation filter is designed for installation in pipes. Suitable process connections must be available for this. The sample preparation system is available with the following process connections: Inlet Adhesive fitting, ID 40 mm, straight Outlet Adhesive fitting, ID 40 mm, straight

Mechanical construction

Dimensions	A0040454
------------	---------------------

 2 Dimensions in mm (in)

Weight	5.3 kg (11.7 lb)						
Materials	<table><tr><th colspan="2">Parts not in contact with medium</th></tr><tr><td>Frame</td><td>Stainless steel</td></tr><tr><td>Housing</td><td>PC/ABS</td></tr></table>	Parts not in contact with medium		Frame	Stainless steel	Housing	PC/ABS
Parts not in contact with medium							
Frame	Stainless steel						
Housing	PC/ABS						

Parts in contact with medium	
Candle filter	PE
Filter connection	PVC
Internal filter pipe	PVC
Pipe adapter	PVC
Valve for backflushing Seal, valve backflushing	PEEK EPDM
Diaphragm, vacuum pump	EPDM
Glue	Tangit
Hoses	PTFE

Certificates and approvals

The product meets the requirements of standard GB 4793.1 of the People's Republic of China (Safety requirements for electrical equipment for measurement, control, and laboratory use).

Ordering information

Product page

www.endress.com/cat17

Product Configurator

On the product page there is a **Configure** button to the right of the product image.

1. Click this button.
↳ The Configurator opens in a separate window.
2. Select all the options to configure the device in line with your requirements.
↳ In this way, you receive a valid and complete order code for the device.
3. Export the order code as a PDF or Excel file. To do so, click the appropriate button on the right above the selection window.



For many products you also have the option of downloading CAD or 2D drawings of the selected product version. Click the **CAD** tab for this and select the desired file type using picklists.

Scope of delivery

The scope of delivery comprises:

- 1 Liquiline System CAT17
- 1 set of Operating Instructions
- Optional accessories



info@lennotech.com Tel. +31-152-610-900
www.lennotech.com Fax. +31-152-616-289

Endress+Hauser 
People for Process Automation