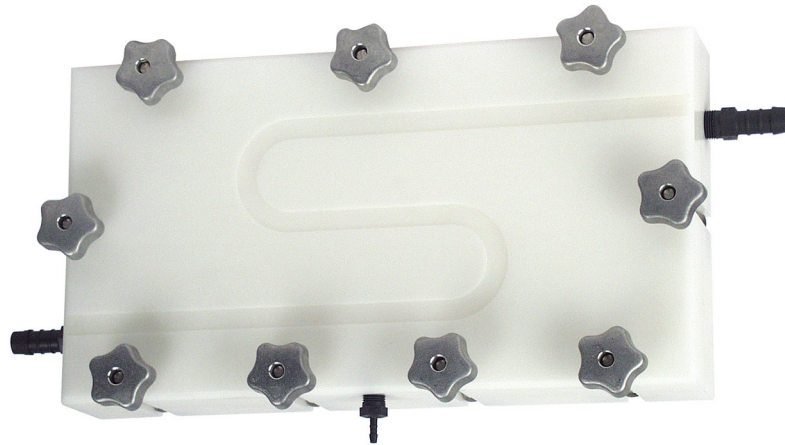


Technical Information

Stamoclean CAT411

Microfilter

Cross-flow filter for the filtration of aqueous samples from pressure pipes



The CAT411 microfilter is a special cross-flow filter for sampling from pressure pipes for the purpose of continuous online monitoring.

A self-cleaning effect results from the flow of medium at the filter.

Application

- Wastewater treatment plant
 - Return activated sludge up to max. 4 g/l (4000 ppm) dry matter
 - Excess sludge up to max. 4 g/l (4000 ppm) dry matter
 - Secondary clarification
- Industry
 - Pressure on filter 0.2 to 1 bar (3 to 15 psi)
 - Sampling in the bypass at higher pressures

Your benefits

- High degree of operational safety thanks to robust design
- Simple cleaning reduces operating costs
- Easy and fast replacement of filter membranes
- Long service life
- Short response time of downstream measuring device due to low dead volume
- No separate energy requirements
- Easy installation

Function and system design

Mode of operation

A sample flow of 0.8 to 1.8 m³/h (3.5 to 8 gal/min) is permanently conducted through the microfilter via a pressure pipe. Some of the sample passes the filter membrane and is then conveyed to the measuring device as filtrate.

The principle of cross-flow filtration is used for sampling. The PTFE filter membrane separates particles > 0.45 µm from the filtrate. These particles collect in front of the filter membrane and are washed away with the sample flow.

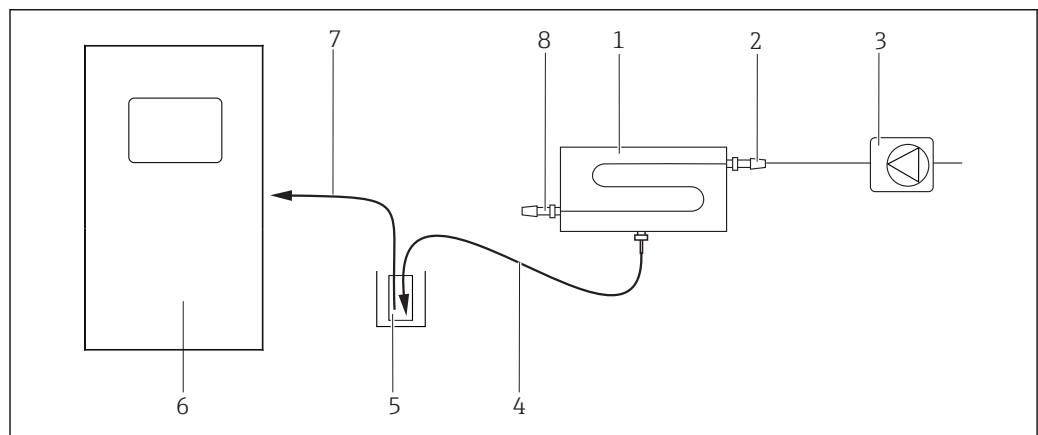
The medium is conducted in a meander-like channel through the filter element. A consistently high flow velocity is achieved in this way. This causes the self-cleaning effect. Mechanical drives to generate a flow at the filter surface are therefore not required.

Measuring system

A complete sample conditioning system comprises:

- Stamoclean CAT411 microfilter
- Collecting vessel
- Analyzer

A sensor with a flow assembly can also optionally be integrated into the measuring system.



- | | | | |
|---|------------------------------|---|------------------------------|
| 1 | Complete measuring system | 5 | Collecting vessel (optional) |
| 1 | CAT411 | 6 | Analyzer |
| 2 | Inlet | 7 | Analyzer suction line |
| 3 | Sample pump or pressure line | 8 | Free outlet |
| 4 | Filtrate line | | |

Process conditions

Medium temperature 5 to 50 °C (41 to 122 °F)

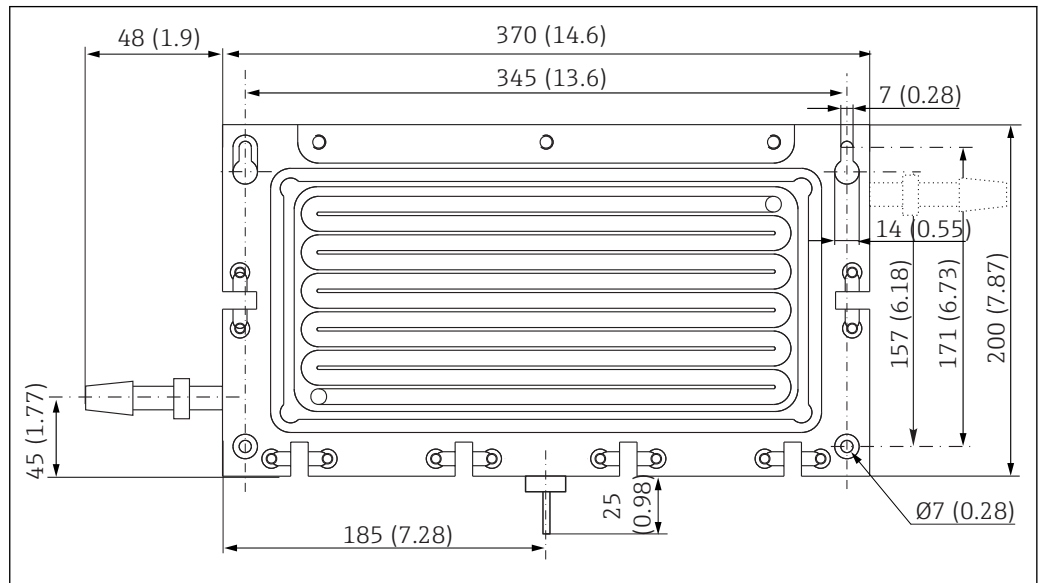
Process pressure 0.2 to 1 bar (3 to 15 psi)

Flow velocity 2.5 to 5.5 m/s (8 to 18 ft/s)

Inlet volume 0.8 to 1.8 m³/h (3.5 to 8 gal/min)

Mechanical construction

Dimensions



2 Dimensions

Filter membrane	L x B: 300 x 135 mm (11.8 x 5.31")	
Weight	Approx. 3 kg (6.6 lbs)	
Materials	Housing	POM
	Fixing screws	Stainless steel
	Seals	Perbunan
	Filter membrane	PTFE
Channel cross-section	9 x 10 mm (0.35 x 0.39")	
Filter membrane pore size	0.45 µm	
Connections	Inlet and outlet:	Hose connection nipple for hose ID 14 mm (0.55")
	Filtrate outlet:	Hose connection nipple for hose ID 4 mm (0.16")

Ordering information


Product page

www.endress.com/cat411

Product Configurator

On the product page there is a "Configuration" 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. To do so, click the "CAD" tab and select the desired file type using drop-down lists.

Scope of delivery

The scope of delivery comprises:

- 1 Filter holder
- 1 Activating reagent
- 2 Perbunan seals
- 1 set of Operating Instructions

 The materials to secure the filter holder on the wall are not included in the scope of supply and must be provided by the customer.

www.addresses.endress.com
