

Micro Filter *StamoClean CAT 411*

Cross Flow Filter for the Filtration of Waters from Pressure Pipes



Application

The CAT 411 micro filter is a special cross flow filter for sampling for continuous on-line monitoring from pressure pipes. A self cleaning effect results from the medium flow at the filter.

Applications are:

- Sewage treatment plant
 - Return activated sludge up to 8 g/l dry substance
 - Waste activated sludge up to 8 g/l dry substance
 - Secondary clarifier
- Industry
 - Pre-pressure to filter from 0.5 to 1 bar
 - Sampling in by-pass at upper pressure

Your benefits

- High operational safety due to robust construction
- Reduced operating expenses due to simple cleaning
- Easy and fast exchange of the filter membranes
- Long operating cycle
- Short response time of a downstream measuring device due to low dead volume
- No separate power consumption
- Easy installation



Function and system design

Measuring principle

A sample flow of 0.8 to 1.8 m³/h is continuously conducted through the CAT 411 micro filter via a pressure pipe. A part of the sample passes the filter membrane and is then conveyed to the measuring device as filtrate.

Sampling is based on the cross flow filtration principle. The PTFE filter membrane separates particles with sizes > 0.45 µm from the filtrate. These particles are collected in front of the membrane and are washed away with the sample flow.

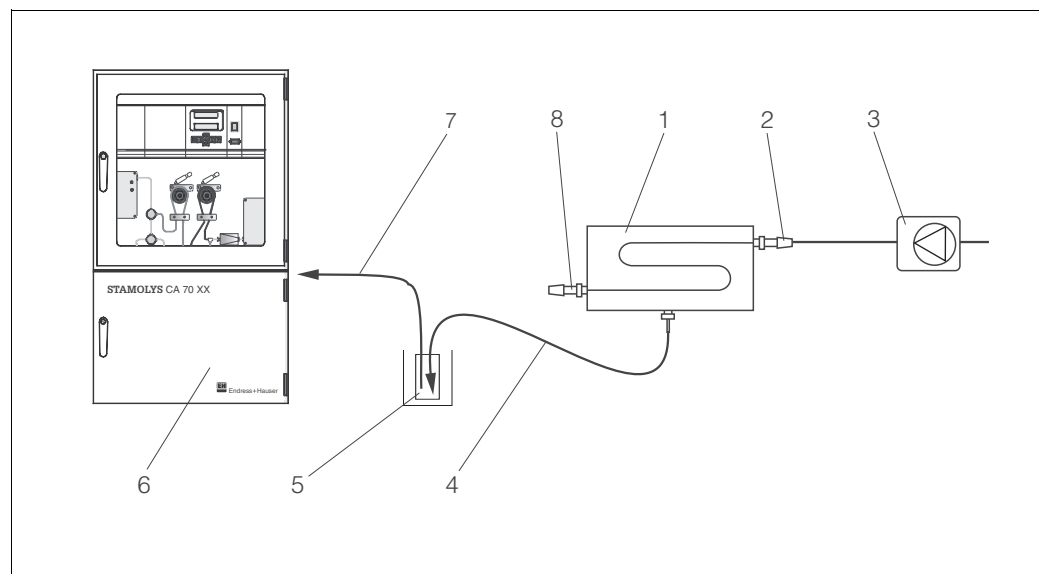
The medium is conducted in a meander-like channel through the filter element. This causes a constant high flow rate. The high flow rate generates the self cleaning effect. Therefore, mechanical drives for the generation of a flow at the filter surface are not necessary.

Measuring system

A complete measuring system comprises:

- a micro filter StamoClean CAT 411
- a collecting vessel
- an Analyzer CA 70XX

Optionally, a sensor (CNS 70/CSS 70) with flow assembly can also be integrated into the measuring system.



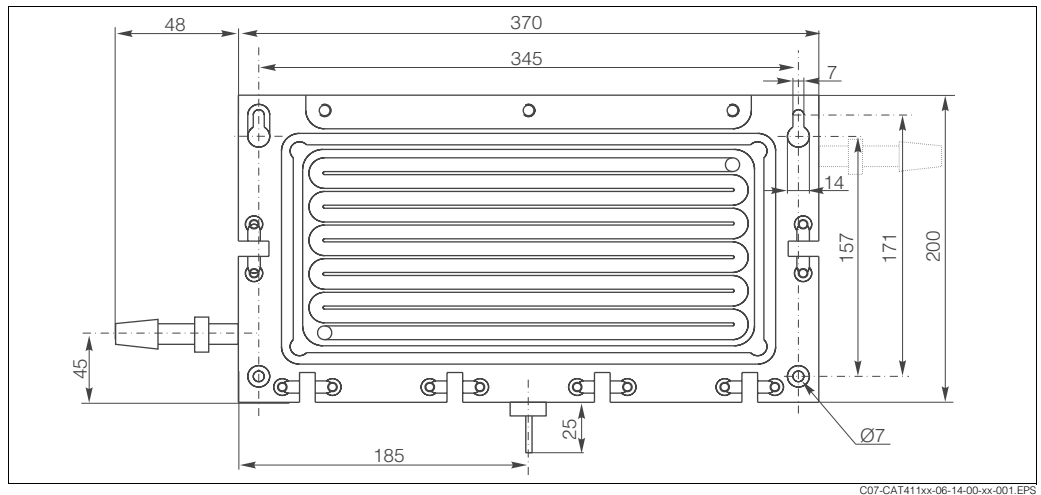
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Complete measuring system

- | | | | |
|---|------------------------------|---|--------------------------------|
| 1 | CAT 411 | 5 | Collecting vessel (optionally) |
| 2 | Inlet | 6 | Analyzer |
| 3 | Sample pump or pressure pipe | 7 | Sample line to the Analyzer |
| 4 | Filtrate line | 8 | Free outlet |

Installation

Installation Instructions



Dimensions CAT 411

Process

Medium temperature range	5 ... 50 °C
Process pressure	0.2 ... 1 bar
Flow rate	2.5 ... 5.5 m/s
Inlet volume	0.8 ... 1.8 m³/h

Mechanical construction

Dimensions	CAT 411 Filter membrane	L x W x H: 370 x 200 x 70 mm L x W: 300 x 135 mm
Weight	approx. 3 kg	
Materials	Housing CAT 411 Fastening screws Seals Filter membrane	POM Stainless steel Perbunan® PTFE
Channel profile	9 x 10 mm	
Filter membrane pore size	0.45 µm	
Connections	Inlet and outlet Filtrate outlet	Hose nozzle for hose with ID 14 mm Hose nozzle for hose with ID 4 mm

Ordering information

Product structure

Version		
	A	Filter unit for wall mounting only
	B	Filter unit in GFK housing ¹⁾
	C	Filter unit with bypass assembly on PVC plate
	Y	Special version acc. to customer's specification
CAT 411 -		complete order code

¹⁾ GFK = fibre glass reinforced plastic

Documentation

- ☐ StamoClean CAT 411 Operating Instructions, BA349C/07/en, order no. 51511292
- ☐ StamoLys CA 70 AM, Analyzer for ammonium,
Technical Information, TI219C/07/en, order no. 51502581
- ☐ StamoLys CA 70 NI, Analyzer for nitrate,
Technical Information, TI220C/07/en, order no. 51502639
- ☐ StamoLys CA 70 PH, Analyzer for phosphate,
Technical Information, TI221C/07/en, order no. 51502641
- ☐ StamoLys CA 70 NO, Analyzer for nitrite,
Technical Information, TI294C/07/en, order no. 51506716

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