

Extract 840M

TECHNICAL INFORMATION

Manual retractable probe housing



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1 Technical data

1.1 Standards

The following standards were applied when manufacturing the retractable probe housing:

- Pressure Equipment Directive

1.2 Material properties

Wetted components			
Probe housing			
EXtract	Stainless steel	Ball valve	Seals
840M	1.4404/316 L	1.4404/316 L	PTFE EPDM / FPM / FFKM

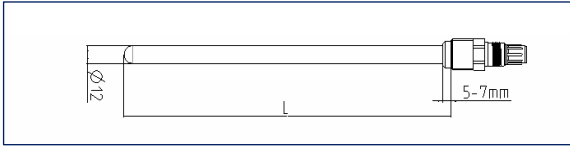
1.3 Cleaning ports

Thread	
Without a gland	G 1/8" (female)
With a gland	G 1/4" (female)
With a gland	NPT 1/4" (female)

Cleaning pressure	
	1-4 bar

1.4 Sensors

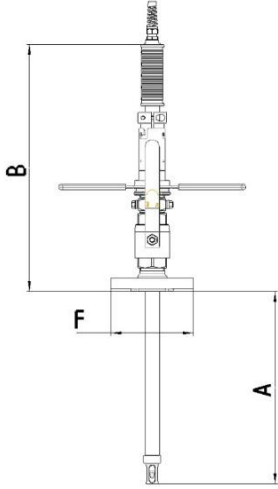
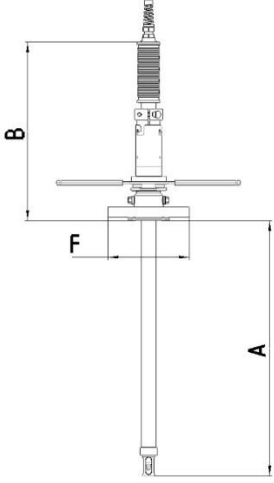
Gel-filled sensor			
EXtract	l [mm]	d [mm]	PG
840M	120	12	13.5



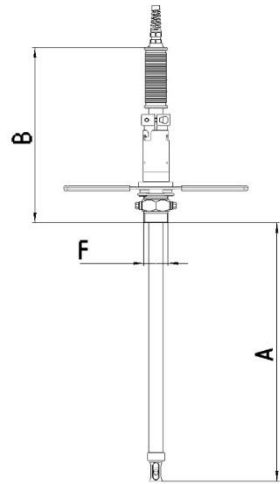
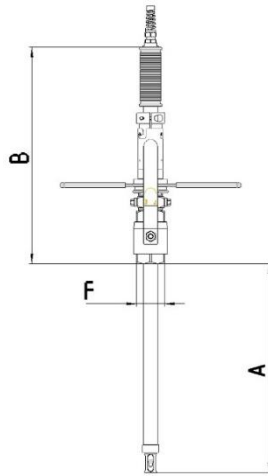
1.5 Dimensions

Dimensions		
Measurements [mm]	Immersion depth (ET) 300 mm	Immersion depth (ET) 700 mm
A	Variable 0-300	Variable 0-700
B	420-880	420-1280
C	750	1150
D	Ø 30	Ø 30
E	320	320

Dimensions

				
Measurements [mm]	With ball valve		Without ball valve	
	ET 300 mm	ET 700 mm	ET 300 mm	ET 700 mm
A [variable]	0-300	0-700	0-440	0-840
B [variable]	420-880	420-1280	310-770	310-1170
F	DN32 PN16 / ANSI 1 1/4" 150 lbs		DN32 PN16 / ANSI 1 1/4" 150 lbs	

Process connector thread



Measurements [mm]	With ball valve		Without ball valve	
	ET 300 mm	ET 700 mm	ET 300 mm	ET 700 mm
A [variable]	0-370	0-770	0-445	0-845
B [variable]	380-840	380-1240	300-765	300-1163
F	Female G 1 1/4" / NPT 1 1/4"		Male G 1 1/4" / NPT 1 1/4"	

1.6 Environmental conditions

Ambient temperature -10...70 °C

Transport and storage temperature -20...80 °C

1.7 EXtract 840M process conditions

Max. permissible pressure PS: 12 bar (manually operable up to 4 bar)

Max. permissible temperature TS: 130 °C

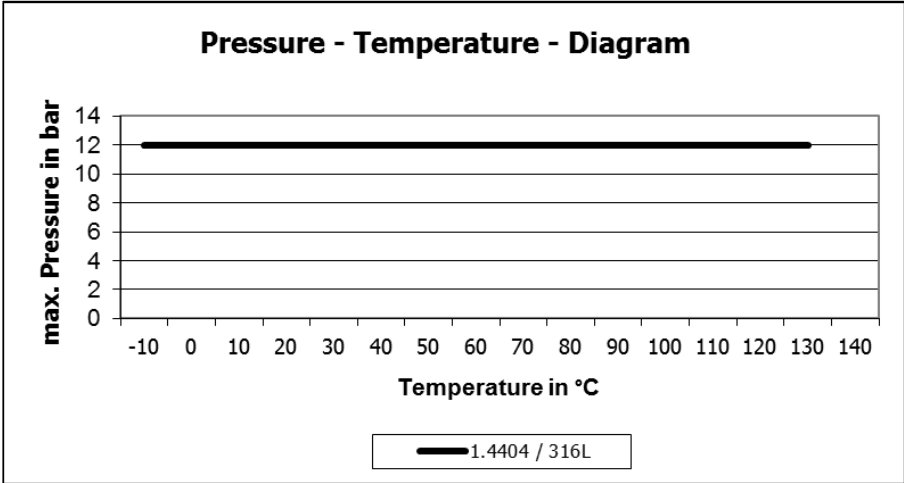


Fig. 1: EXtract 840M pressure-temperature diagram

1.8 Identification plate



Fig. 2: Identification plate

2 Product description

2.1 Extract 840M manual retractable probe housing

2.1.1 Components

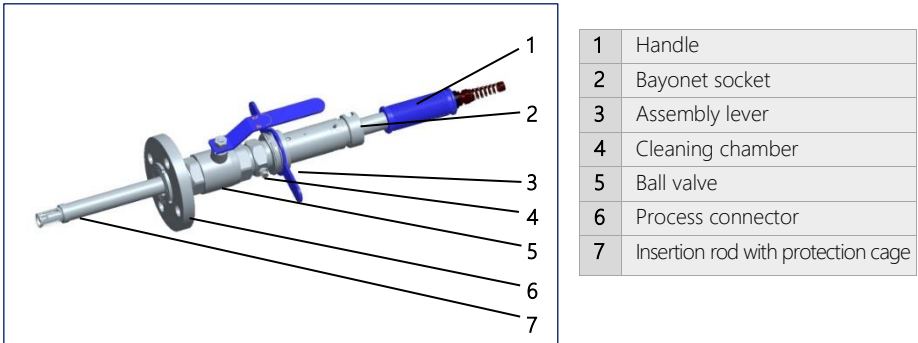


Fig. 3: EXtract 840M retractable probe housing

2.1.2 Versions

Retractable probe housings are attached to tanks or pipes by an appropriate process connector. In order to do justice to the diverse process properties, the EXtract 840M retractable probe housing is manufactured from stainless steel. In addition, you can choose between a variety of process and cleaning ports and seal materials.

EXtract 840M

The EXtract 840M probe housing is a manually operated retractable probe housing made of stainless steel for the installation of \varnothing 12 mm sensors on tanks or pipes.

The probe housing can be used for:

- \varnothing 12 mm/120 mm sensors with PG13.5 thread
(pH glass and ISFET sensors, temperature, turbidity or optical sensors)
- Water / Waste water
- Particularly rough processes

- With secure ball valve closing (lockable)

2.1.3 Drive unit

The manual actuation of the probe housing is mechanical linear actuation which immerses the sensor into the medium via movement of the insertion rod.

2.1.4 Immersion depth

The sensor immersion depth can be freely selected using the movable bayonet socket on the insertion rod.

2.1.5 Measurement

When the stop position for the "measuring" position is reached, it can be locked using the bayonet socket. In this position, the sensor is permanently mounted in the insertion rod and cannot be removed. The sensor measures the chemical or physical properties of the process liquid.

2.1.6 Service

The sensor for the ball valve version can be removed for cleaning or servicing while the process is running. For this purpose, the probe housing must be moved to the "service" position.

To unlock the bayonet socket, a short movement towards the process direction is required. If the process pressure is so high that the insertion rod cannot be moved manually, the sensor cannot be removed without reducing the process pressure.

In the "service" position, the ball valve can be closed, thus safely sealing the sensor off from the process. The sensor can be cleaned in the cleaning chamber without further removal thanks to the cleaning ports.

2.2 Process integration

Transmitter

The retractable probe housing inserts a sensor into the process liquid, which transmits its measuring results to a transmitter.

PLS

The transmitter can be connected with a process control system. Depending on the measuring results, a rinsing requirement can be output, which must be implemented manually.

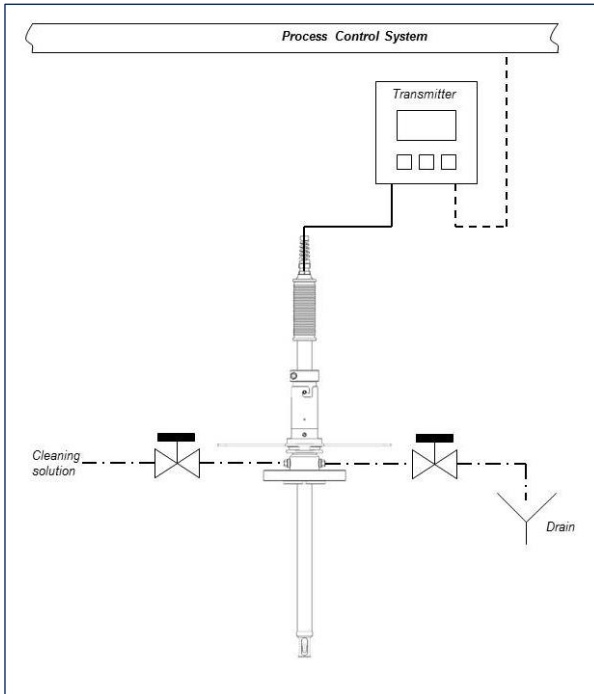


Fig. 4: Process flow

Pressure / Temperature

The pressure and temperature conditions of the process are decisive for the selection of the appropriate probe housing. Depending on the temperature, the retractable probe housing can be operated up to a pressure of 12 bar, manual operation is possible up to a process pressure of 4 bar!

The process temperature must be between $-10\text{ }^{\circ}\text{C}$ und $130\text{ }^{\circ}\text{C}$.

NOTE

Please observe the pressure and temperature diagrams in → Chapter 3

Installation position

Basically, the probe housing can be operated in any position. In order to obtain reliable measurement results, the sensor properties are decisive.

3 Ordering structure

3.1 Retractable probe housing EXtract 840M

Code	Probe housing, material (wetted parts)	
4404	Stainless steel 1.4404 / 316 L	
XXXX	Special version	
Code	Material (wetted parts)	
EDP	EPDM	
FPM	FPM	
FKM	FFKM	
XXX	Special version	
Code	Immersion depth	
03	300 mm	
07	700 mm	
XX	Special version	
Code	Sensor	
120	120 mm PG 13.5 gel-filled Ø 12mm	
XXX	Special version	
Code	Process connector	
FD32O	Flange DN32 without ball valve	
FD32B	Flange DN32 with ball valve	
FA14O	Flange ANSI 1 ¼" without ball valve	
FA14B	Flange ANSI 1 ¼" with ball valve	
G14MO	Male thread G 1 ¼" without ball valve	
G14FB	Female thread G 1 ¼" with ball valve	
N14MO	Male thread NPT 1 ¼" without ball valve	
XXXXX	Special version	
Code	Cleaning port	
G18	G 1/8" (female)	
G14	G ¼" (female)	
N14	NPT ¼" (female)	
XXX	Special version	
EXtract 840M		Order code

4 Certificates and compliance

All freely available certificates and conformities can be found in their most current form in the “Downloads” section of our website.

To access the following address, enter it into your browser or scan the QR code below. Then select the relevant product and document from the list.

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Depending on the product, additional certificates (e.g. material, surface, etc.) are available. If necessary, please send a corresponding request to Exner Process Equipment GmbH.



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