Flow switch for water-based media

flow-captor 4320.1xM/xx 10.5 - 36 VDC



The flow-captor type 4320.1xM/xx 10.5 - 36 VDC is a flow monitor which is used in automation processes or other industrial applications where liquid media need to be monitored. The 4320.1x-series offers inline models which have been specially designed for installation in smaller pipe diameters. The sensor works according to the calorimetric measuring principle. The detection takes place inside the inline tube, whereby the sensor measures the flow velocity of the medium and converts it into an electrical signal.

- for small pipe sizes from OD 8mm up to OD 28mm
- precise switching flow monitor with high accuracy even with low flows
- separate adjustment of flow range and switching point
- analogue flow display and indication of the adjusted set-point via LED chain.
- fully electronic
- no mechanically moved parts
- ISO 9001:2015

Technical data



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Type	4320.1xM/xx 10.5 - 36 VDC				
Medium	water-based				
Sensor data					
Measuring range	0 - 20 cm/s to 0 - 300 cm/s, cont. adjustable *1				
Flow volume*1 at 300 cm/s	8 x 1 mm	12 x 1 mm	18 x 1,5 mm	22 x 1,5 mm	28 x 1,5 mm
related to tube inner	5.1 l/min	14,1 l/min	31,8 l/min	51 l/min	88,4 l/min
diameter	2,1 ,1			,	, - ,
Set-point range	approx. 15 % - 90 % of measuring range setting				
Medium temperature	-20 °C to +80 °C				
Ambient temperature	-20 °C to +70 °C				
Pressure	max. 30 bar (3000 kPa)				
Response time	2 sec 10 sec. (according to range setting) < 5 % *1				
Linearity deviation Repeatability	< 2 %				
Hysteresis	< 2 % ca. 10 %				
Temperature drift	< 0,3 % K				
Mechanical data	√ 0,0 /0 IX				
Protection rate	IP67				
	stainless steel 316 Ti				
Housing material Sensor material					
Pipe sizes	stainless steel 316Ti (other material on request)				
OD x wall thickness	8 x 1 mm	12 x 1 mm	18 x 1,5 mm	22 x 1,5 mm	28 x 1,5 mm
Connection	4-pin M12-coupling (cable type 4940 has to be ordered separately)				
Dimensions of housing	see drawing				
Electrical data					
Operating voltage	10.5 to 36 VDC, incl. residual ripple				
Current consumption	max. 150 mA (pulsed)				
Power consumption	approx. 1 W				
Switching current	≤ 400 mA				
Circuit protection	reverse polarity / short circuit / overload				
Voltage drop	< 2 V at max. load				
State of readiness	approx. 10 sec. after connection of power				
Electrical output	4320.12M/xx PNP n. c. (opener)				
Without flow:	4320.13M/xx PNP n. o. (closer)				
1) all data refer to water					

weber

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Connection diagram



