

# Flow switch for liquid media



## flow-captor 412x.42M/.43M

The flow-captor 412x.42/.43M is ideally suited for use in automation processes or other industrial applications where liquid media must be controlled. The sensor operates according to the calorimetric measuring principle, fully electronic and without any mechanically moving parts. The flow-captor detects the flow velocity of the medium and converts it into an electrical signal.



- precise switching flow monitor with **optocoupler output**
- high switching accuracy even with slower flows
- separate adjustment of set-point and range
- display of flow and the adjusted switching point via LED chain
- LED for output status
- robust stainless steel design (special potting)
- **ISO 9001:2015**

Technical data		
Type	4120.42M/.43M	4121.42M/.43M
Medium	water-based	oil-based
Sensor data		
Measuring range	0 - 20 cm/s to 0 - 300 cm/s, continuously adjustable <sup>1)</sup>	0 - 30 cm/s to 0 - 300 cm/s, continuously adjustable <sup>2)</sup>
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. 100 bar (1000 Kpa)	
Response time	2 sec. - 10 sec., according to range setting	2 sec. -15 sec., according to range setting
Linearity deviation	< 5 % <sup>1) 2)</sup>	
Repeatability	< 2 %	
Hysteresis	approx. 10 %	
Temperature drift	< 3 % / K	
Mechanical data		
Protection class	IP67	
Material housing	stainless steel AISI 303	
Material of sensor probe	stainless steel AISI 303 (other material on request)	
Thread	G 1/2" BSP alt. 1/2" - 14 NPT	
Housing dimensions ODxH	see drawing next page	
Electrical connection	4-pin M12 plug	
Connection cable (optional)	2 m oilflex cable type 4941	
Electrical data		
Operating voltage	18 - 30 VDC	
Switching current	<60 VDC - 300 mA - 25 °C / <25 VAC - 300 mA - 25 °C / <220 - 70 °C	
Initial operation	approx. 10 sec. after connection of power	
Optocoupler output		
	412x.42M	412x.43M
Switching condition with flow < switching point	energized, switched	currentless, not switched
LED	off	off
Switching condition with flow > switching point	currentless, not switched	energized, switched
LED	green	green

<sup>1)</sup> data relate to water <sup>2)</sup> calibrated with insulating oil type "Shell Diala"

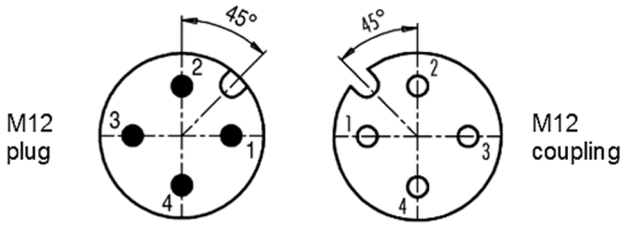
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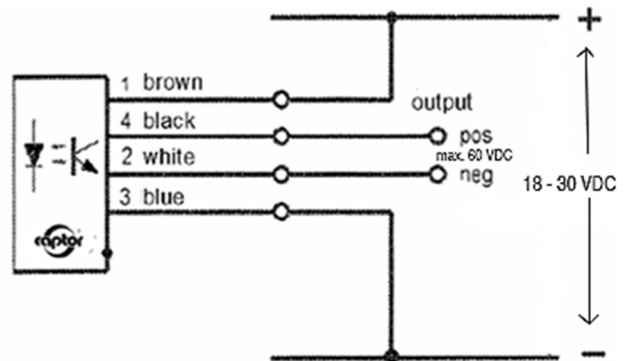


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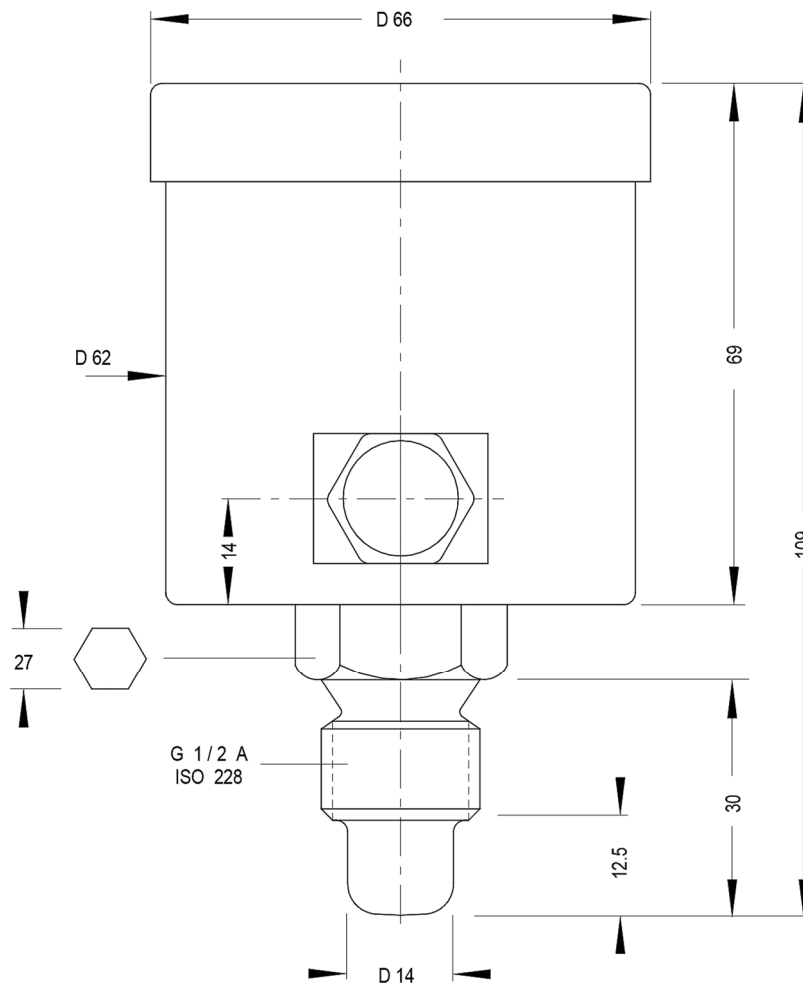
Face view of pins and male



Connection diagram



Dimensions



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