

Metering flow switch for liquid media



flow-captor 412x.12M/.13M 12-24 VDC

The flow-captor type 412-.12/.13M 12-24 VDC is a family of compact, precise metering flow switches with analog display in a rugged stainless steel housing. They operate based on the calorimetric principle. The flow-captor allows to set an exact flow set-point and will measure simultaneously the flow rate up to the lowest flow conditions.



- Precise switching flow monitor for water or oil based solutions **up to 100 bar**
- High accuracy also under low flow conditions
- Separate adjustment for „range“ and „set-point“
- Analog display of actual flow rate and display of adjusted set-point value
- LED display for output status
- **ISO 9001:2008**

Technical Data		
Type	4120.12M/.13M 12-24 VDC	4121.12M/.13M 12-24 VDC
Medium	water based solutions	oil based solutions
Sensor Data		
Measuring range	0-20 cm/s to 0-300 cm/s, cont. adjust ¹⁾	0-30 cm/s to 0-300 cm/s, cont. adjust ²⁾
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	
Response time	2 s - 10 s, according to range setting	2 s - 15 s, according to range setting
Linearity deviation	< 5% ¹⁾	< 5% ²⁾
Repeatability	< 2%	
Hysteresis	approx. 10 %	
Mechanical Data		
Protection class	IP 67	
Material Housing	stainless steel WN1.4305 / AISI 303 (M)	
Material sensor head	stainless steel WN1.4305 (AISI 303) alt. WN 1.4571 (AISI 313 Ti); A , other materials on request	
Thread	G½ A (½ " BSP), alt. ½ " - 14 NPT	
Housing dimensions ODxH	OD 66 X H 99/59	
Connection	M12x1, 4-pin	
Electrical Data		
Operating voltage	12-24 VDC (10,5 - 36 VDC) incl. residual ripple	
Switching current / Contact load	≤ 400 mA	
Initial operation	approx. 10 s after connection of power	
Electrical output - Transistor	PNP n.c. ³⁾ : 4120.12 M PNP n.o. ⁴⁾ : 4120.13 M	PNP n.c. ³⁾ : 4121.12 M PNP n.o. ⁴⁾ : 4121.13 M

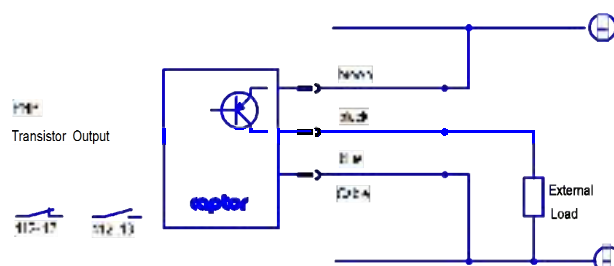
¹⁾ data relate to water

²⁾ calibrated with insulation oil type "Shell Diala"

³⁾ switch opens with flow

⁴⁾ switch closes with flow

Connection diagram



weber