

Inline flow switch for liquid media



flow-captor 442x.1xM + PT100 temperature output

The **flow-captor** type 442x.1xM is a compact, precise metering flow switch with analog display and PT100 temperature output in a rugged stainless steel housing. It operates 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
- 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
- PT100 temperature output
- **ISO 9001:2008**

| Technical Data | | |
|----------------------------------|--|--|
| Type | 4420.12M/.13M + PT100 | 4421.12M/.13M + PT100 |
| 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. 30 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 | |
| Housing | stainless steel WN1.4404 (AISI 316L) | |
| Sensor head | stainless steel WN 1.4571 (AISI 316 Ti) | |
| Pipe dimensions in mm (DXW) | 6x1, 8x1, 12x1, 18x1,5 | |
| Connection | M12x1 plug/5-pin (order cable type 4942 separately) | |
| Electrical Data | | |
| Operating voltage | 18 - 30 VDC, inclusive residual ripple | |
| Switching current / Contact load | ≤ 400 mA | |
| Initial operation | approx. 10 s after connection of power | |
| Temperature output | PT100 | |
| Electrical output | PNP n. c. ³⁾ : 4420.12 M PNP n. o. ⁴⁾ : 4420.13 M | PNP n. c. ³⁾ : 4421.12 M PNP n. o. ⁴⁾ : 4421.13 M |

1) data applies to water

2) calibrated with insulation oil type "Shell Diala"

3) switch open with flow

4) switch closed with flow

