

## Inline flow-captor 432x.1xM 10.5 - 36 VDC

The Inline **flow-captor** type 432x.1xM 10.5.- 36 VDC is a unique, compact, metering flow switch with adjustable set-point and analog display for industrial applications in stainless steel housing. The functionality is based on the calorimetric principle. The inline flow-captor allows to set an exact flow set-point and to measure simultaneously the flow rate up to the lowest flow conditions.

- Accurate 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
- LED for output status
- **ISO 9001 : 2015**



### Technical Data

|                                 |   |                      |   |   |
|---------------------------------|---|----------------------|---|---|
| Typ                             | 4320.1xM 10.5 - 36 VDC  |                      | 4321.1xM 10.5 - 36 VDC                              |   |
| Medium                          | water based solution  |                      | oil-based solutions                                 |   |
| Sensor Data (Inline Pipe)       |   |                      |   |   |
| Measuring range                 | 0-20 cm/s to 0-300 cm/s, cont. adjust <sup>1)</sup>                   |                      | 0-30 cm/s to 0-300 cm/s, cont. adjust <sup>2)</sup> |   |
| Flow rate at 300 cm/s (l/min.)  | 8x1: <b>5,1 L.</b>  | 12x1: <b>14,1 L.</b> | 18x1,5: <b>31,8 L.</b>                              | 22x1,5: <b>51,0 L.</b> 28x1,5: <b>88,4 L.</b> |
| 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                        | up to 30 bar  |                      |   |   |
| Response time                   | 2s - 10s, according to range setting                                  |                      | 2s - 15s, according to range setting                |   |
| Linearity deviation             | < 5% <sup>1)</sup>  |                      | < 5% <sup>2)</sup>                                  |   |
| Repeatability                   | < 2%  |                      |   |   |
| Hysteresis                      | approx 10%  |                      |   |   |
| Mechanical Data                 |   |                      |   |   |
| Protection class                | IP 67   |                      |   |   |
| Material housing                | stainless steel WN 1.4404, AISI 316L                                  |                      |   |   |
| Sensor pipe                     | stainless steel WN 1.4571 (V4A), (Titanium, Hastelloy® C4 on request) |                      |   |   |
| Pipe dimensions (mm)<br>(DxWxL) | 8x1x200   | 12x1x200             | 18x1,5x200  | 22x1,5x200      28x1,5x200                    |
| Electrical connection           | Plug M12x1, 4-pin   |                      |   |   |
| Electrical Data                 |   |                      |   |   |
| Operating voltage               | 10.5 to 36 VDC, incl. residual ripple                                 |                      |   |   |
| Switching current               | ≤ 400 mA  |                      |   |   |
| Initial operation               | approx. 10s after connection of power                                 |                      |   |   |
| Electrical output               | PNP n.c. <sup>3)</sup> : 4320.12M 10.5 - 36 VDC                       |                      | PNP n.c. <sup>3)</sup> : 4321.12M 10.5 - 36 VDC     |   |
|                                 | PNP n.o. <sup>4)</sup> : 4320.12M 10.5 - 36 VDC                       |                      | PNP n.o. <sup>4)</sup> : 4321.12M 10.5 - 36 VDC     |   |

<sup>1)</sup> all data applies to water    <sup>2)</sup> calibrated with insulation oil type "Shell Diala"    <sup>3)</sup> switch open with flow    <sup>4)</sup> switch closed with flow

### Connection diagram

