



## Technical specifications

## Measurement & control

|                              |                                                                       |
|------------------------------|-----------------------------------------------------------------------|
| Type of media                | Gases                                                                 |
| Flow range                   | min. 4...200 l <sub>N</sub> /min<br>max. 8...1600 l <sub>N</sub> /min |
| Accuracy                     | ±0.5% Rd plus ±0.1%FS                                                 |
| Repeatability                | <±0.2% Rd (or <±0.04% FS whichever is greater)                        |
| Turndown ratio               | up to 1:187.5 (1:50 in analog mode)                                   |
| Multi fluid capability       | storage of max. 8 calibration curves                                  |
| Response time (sensor)       | typical 0.5 sec                                                       |
| Operating temperature        | -10...+70°C                                                           |
| Temperature sensitivity      | zero: < 0.05% FS/°C; span: < 0.05% Rd/°C                              |
| Leak integrity, outboard     | tested < 2 x 10 <sup>-9</sup> mbar l/s He                             |
| Pressure sensitivity         | 0.1% Rd/bar typical N2; 0.01% Rd/bar typical H2                       |
| Mounting                     | max. error at 90° off horizontal 0.2% at 1 bar, typical N2            |
| Warm-up time                 | 30 minutes                                                            |
| Storage/transport conditions | 0...+50°C, max. 95% RH (non-condensing)                               |

## Approvals

## Mechanical specs

|                                |                                                                                            |
|--------------------------------|--------------------------------------------------------------------------------------------|
| Pressure rating (PN) - in barg | 100                                                                                        |
| Ingress protection             | IP40                                                                                       |
| Material wetted parts          | stainless steel 316L or comparable                                                         |
| Sealing material               | standard: FKM/Viton®; options: EPDM, FFKM/Kalrez®, FDA and USP Class VI approved compounds |
| Process connections            | compression type or face seal (VCR/VCO) couplings                                          |
| Weight                         | 3.0 kg                                                                                     |

## Electrical properties

|                       |                                                                                                                                                          |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply          | +15...24 Vdc                                                                                                                                             |
| Power consumption     | 1.5 W typical at 24 V<br>for fieldbus: add 0.9 W                                                                                                         |
| Analog output         | 0...5 (10) Vdc or 0 (4)...20 mA (sourcing)                                                                                                               |
| Analog setpoint       | 0...5 (10) Vdc or 0 (4)...20 mA (sinking)                                                                                                                |
| Digital communication | standard: RS232; options: PROFIBUS DP,<br>CANopen®, DeviceNet™, PROFINET, EtherCAT®,<br>Modbus RTU, ASCII or TCP/IP, EtherNet/IP,<br>POWERLINK, FLOW-BUS |

## Electrical interfaces

|                                                               |                      |
|---------------------------------------------------------------|----------------------|
| Power (main connector)                                        | 9-pin D-sub (male)   |
| Function (instrument connector)                               | Analog, RS232, RS485 |
| PROFIBUS DP                                                   | 9-pin D-sub (female) |
| CANopen / DeviceNet                                           | 5-pin M12A (male)    |
| Modbus RTU/ASCII/FLOW-BUS                                     | RJ45                 |
| Modbus TCP / EtherNet/IP / EtherCAT®/<br>PROFINET / POWERLINK | 2x RJ45              |