



## Technical specifications

### Measurement & control

|                              |                                                                          |
|------------------------------|--------------------------------------------------------------------------|
| Type of media                | Gases                                                                    |
| Flow range                   | min. 0.3...15 ml <sub>N</sub> /min<br>max. 0.4...20 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               | 1:50                                                                     |
| 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 N <sub>2</sub> ; 0.01% Rd/bar typical H <sub>2</sub> |
| Mounting                     | max. error at 90° off horizontal 0.2% at 1 bar, typical N <sub>2</sub>   |
| Warm-up time                 | 30 minutes                                                               |
| Storage/transport conditions | 0...+50°C, max. 95% RH (non-condensing)                                  |

### Approvals

|         |                       |
|---------|-----------------------|
| Marking | CE, RoHS, WEEE, REACH |
|---------|-----------------------|

### Mechanical specs

|                                |                                                   |
|--------------------------------|---------------------------------------------------|
| Pressure rating (PN) - in barg | 400                                               |
| Ingress protection             | IP40                                              |
| Material wetted parts          | stainless steel 316L or comparable                |
| Sealing material               | standard: FKM/Viton®; option: FFKM/Kalrez®        |
| Process connections            | compression type or face seal (VCR/VCO) couplings |

### 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, CANopen®, DeviceNet™, PROFINET, EtherCAT®, Modbus RTU, ASCII or TCP/IP, EtherNet/IP, 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® / PROFINET / POWERLINK | 2x RJ45              |