



Product Description

Flow sensor for volume flow measurements in compressed air and gases with integrated LED display and two configurable signal outputs. Configurable with two buttons. Selectable indication of flow rate, total flow, temperature, measuring units and attenuation. Selectable signal outputs for switching outputs or analog/impulse outputs.


Applications

- ◆ Consumption measurement of compressed air
- ◆ Inert gas flow measurement
- ◆ Consumption measurement of compressed air tools
- ◆ Consumption measurement of compressed air driven machines

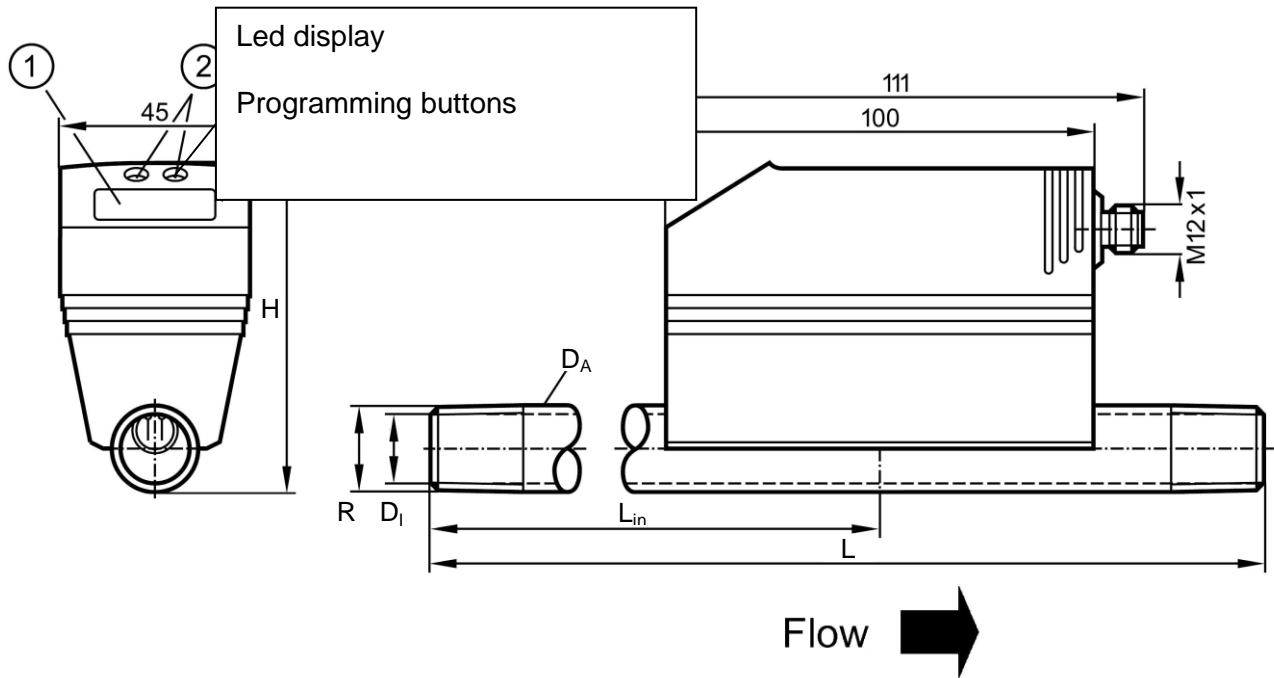
Advantages

- ◆ Easy installation
- ◆ Direct measurement for normal volume flow
- ◆ Very low pressure loss
- ◆ LED display for flow rate, total flow, temperature and configuration

Technical data

| | | | |
|--|--|--|--|
| Technology / Design | Thermal Inline flow sensor | Pipe Dimensions (depending on version) | Ø Outside: DN 15 .. DN 50 Connection: Male thread R ½ .. R2 |
| Measuring Range (F.S) | 0.25...76.3 Normal m ³ /h (SS 30.300) 0.8 ... 229 Normal m ³ /h (SS 30.301) 1.5 ... 417 Normal m ³ /h (SS 30.302) 3.0 ... 712 Normal m ³ /h (SS 30.303) (at 20 °C and 1013.25 hPa) | Output 1 (OUT 1) switchable to | Switching output Impulse output |
| Accuracy Flow | ± (3 % of m.v. + 0,3 % of Full scale) (air quality class 141 or 344) | Output 2 (OUT 2) switchable to | Switching output 4 ... 20 mA |
| Attenuation (dAP) | 0 / 0,2 / 0,4 / 0,6 / 0,8 / 1 s Default: 0,6 s | Configuration Switching Output | Switching values / Range / Hysteresis |
| Response Time (dAP = 0 s) | < 0,1 s | Layout Digital Output (Switch & Impulse) | PNP (Highside-Driver at U _B) ≤ 250 mA; Voltage drop < 2 V |
| Accuracy Temperature | ≤ ± 2 °C (Maximum volume flow) | Working Resistance | ≤ 500 Ω |
| Measuring Direction |  unidirektional | Display | 4 digits LED display 7 segments, 7mm, red |
| Medium | Clean air , nitrogen Other gases on request | Supply Voltage U _B | 19 ... 30 V DC |
| Medium Resistance | Air quality class 141 oder 344 (according DIN 8573-1) | Current Consumption | < 100 mA (without output load) |
| Maximum Pressure | 16 bar | Electrical Connection | Plug 4 pins, M12 |
| Relative Humidity | ≤ 90 % | Protection Class | IP 65 |
| Operating Temperature | Medium : 0 ... +60 °C Electronics : 0 ... +60 °C | Material Housing | PBT, glas fibre reinforced |
| Pipe Dimensions (depending on version) | Ø Inside: 16,1 .. 51 mm Length: 300 mm .. 475 mm | Material Sensor Element | Ceramics, glas passivated |
| | | Material Tube | Stainless steel 1.4301 |

Drawing and Dimensions



Dimensions

| Sensor | Length L [mm] | Inlet Path L _{in} [mm] | Outer Diameter D _A [mm] | Inside Diameter D _I [mm] | Height H [mm] | Connection R |
|-----------|---------------|---------------------------------|------------------------------------|-------------------------------------|---------------|--------------|
| SS 30.300 | 300 | 210 | 21,3 | 16,1 | 76,8 | R½ |
| SS 30.301 | 475 | 375 | 33,7 | 27,3 | 88,5 | R1 |
| SS 30.302 | 475 | 275 | 42 | 39 | 120 | R1½ |
| SS 30.303 | 475 | 275 | 54 | 51 | 133 | R2 |

Order Information

| Sensor | Order Number |
|---|--------------|
| SS 30.300 - 76,3 Normal m ³ /h | 508 520 |
| SS 30.301 - 229 Normal m ³ /h | 508 521 |
| SS 30.302 - 417 Normal m ³ /h | 508 522 |
| SS 30.303 - 712 Normal m ³ /h | 508 523 |
| Accessory (Please order separatly) | |
| Connection cable (5 m) | 300 722-1 |
| Connection cable (10m) | 300 722-2 |
| Female connector, 4 pins, without cable with screw terminal | 301 008 |
| Power supply 24VDC, 115/230VAC, terminal block, short circuit protected, mounting on rail | 300 640 |
| ISO calibration certifikate SS 30.300 – 6 calibration points | 510 356-1 |
| ISO calibration certifikate SS 30.301 – 6 calibration points | 510 356-2 |
| ISO calibration certifikate SS 30.302 – 8 calibration points | 510 356-3 |
| ISO calibration certifikate SS 30.303 – 8 calibration points | 510 356-4 |