

SL94F001

Flow sensors • Consumption measurement for compressed air

Sensor flow, air, calorimetric, 187x75x475mm, R1 1/2", 12-36V DC, 4-20mA, M12 plug connector 5-pin, plastic PC, pressure resistance 16bar, with display, parameterization, RS485, MBus



The function of the flow sensor is based on the calorimetric principle. The sensor is heated by a few degrees Celsius from the inside in relation to the flow medium into which it projects. When the medium flows, the heat generated in the sensor is dissipated by the medium. The temperature setting in the sensor is measured and compared with the medium temperature, which is also measured. From the temperature difference obtained, the flow condition can be derived for each medium. Applications for these sensors include measuring compressed air consumption.

Electrical features

| | |
|-----------------------------------|---|
| Display | LCD display |
| Type of analog output | 4 - 20mA |
| Type of electrical connection | Connector M12 |
| Type of interface connection | Plug-in connection M12 |
| Setting procedure | Parameterization |
| Coding of interface connection | A-coded |
| Short-circuit protection | Yes |
| No-load current | 120 mA |
| Number of pins | 5 |
| Reverse polarity protection | Yes |
| Measurement principle | calorimetric |
| Supported communication interface | MBus RS485 |
| Operating voltage (DC) | 12 - 36 V |
| Measuring accuracy | ± 1.5 % of measuring range ± 0.3 % of measuring range end |

Mechanical features

| | |
|-------------------------------|--------------------------------------|
| Type of process connection | R1 1/2 inch |
| Design | Cuboid, integrated measuring section |
| Width | 475 mm |
| Pressure resistance | 16 bar |
| Height | 186.9 mm |
| Length | 75 mm |
| Medium temperature | -30 - 80 °C |
| Degree of protection (IP) | IP65 |
| Housing material | Plastic PC |
| Sensing element material | Stainless steel 1.4301 |
| Measuring range flow volume | 16,66 - 12166,66 l/min |
| Measuring range flow velocity | ,18 - 185 m/s |
| Ambient temperature | -20 - 70 °C |

Other features

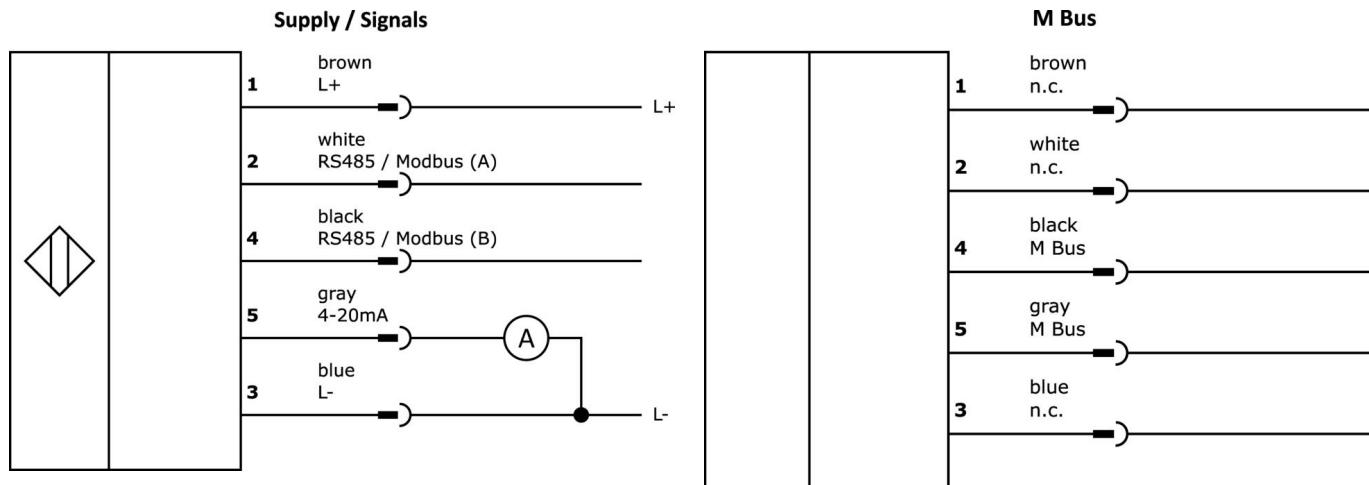
| | |
|---------------------------|-----------------------|
| Reference medium / object | Air |
| ardTE00_Anwendungen | Pneumatik-Anwendungen |

Classification

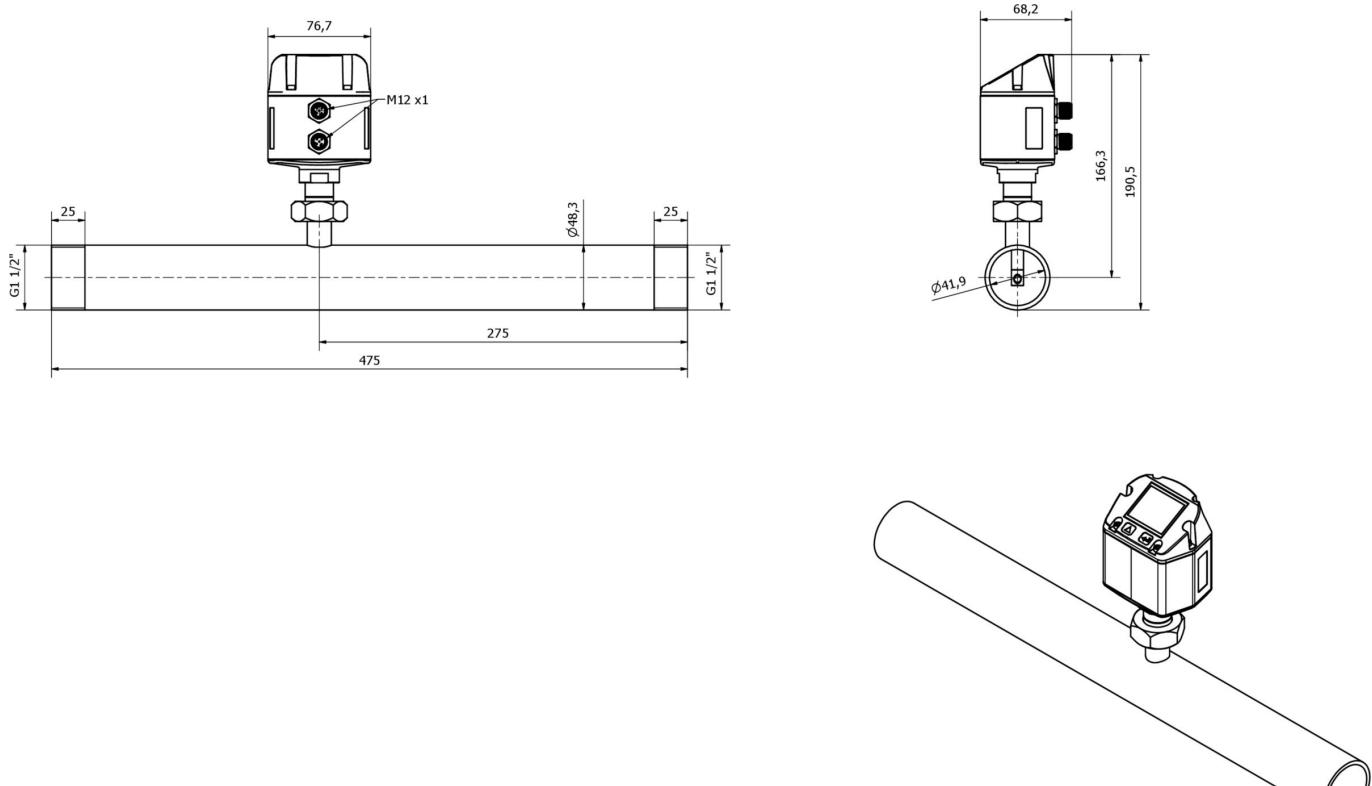
| | |
|--------|---------------------------------|
| ETIM 8 | EC002580 Flow monitoring device |
|--------|---------------------------------|

More

| | |
|-----------------------|--|
| IPF Product Group | 725 compressed air and leakage measurement |
| packaging dimensions | 500 x 165 x 230 mm |
| gross weight | 2466 g |
| Customs tariff number | 90268020 |
| WEEE number | 40951076 |
| Reach-compliant | Yes |
| RoHS-compliant | Yes |

Connection

Dimensional drawing



Extract accessories program

VK030F28



Connection cable, 0.3m, M12
socket 5-pin straight, M12
connector 5-pin straight, 5-core,
PUR (polyurethane), suitable for
trailing chain and torsion resistant,
oils and cooling lubricants,
welding area, silicone-free

VK060F28



Connection cable, 0.6m, M12
socket 5-pin straight, M12
connector 5-pin straight, 5-core,
PUR (polyurethane), suitable for
trailing chain and torsion resistant,
oils and cooling lubricants,
welding area, silicone-free

VK205621



Connection cable, 2m, M12
Female (socket) Spin Angular, Free
conductor end, 5x0.34mm², PUR
(Polyurethane), Ø6mm, 60V, -25-
90°C, IP67, Shielded, Suitable for
trailing chain and torsion resistant,
Oil and cooling lubricants, Welding
area, Silicone-free

VK205625



Connection cable, 2m, M12
Female (socket) Spin Straight, Free
conductor end, 5x0.34mm², PUR
(Polyurethane), Ø6mm, 60V, -25-
90°C, IP67, Shielded, Suitable for
trailing chain and torsion resistant,
Oil and cooling lubricants, Welding
area, Silicone-...

AS000015



Screw plug, M32x1,5, Aluminum,
up to 16bar

AS000016



Screw plug, M32x1,5, Stainless
Steel

You can find further accessories on our homepage



Installation

Mounting / installation may only be carried
out by a qualified electrician!



Disposal

WEEE number according to § 6 para. 3
ElektroG: 40951076

Safety warnings

- !*** Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.
- !*** Never use these devices in applications where the safety of a person depends on their functionality.
- !*** Any software, drivers or IODD files that may be required to operate your device can be downloaded free of charge from our homepage: www.ipf-electronic.com