

SL950020

Flow sensors • Consumption measurement for compressed air

Sensor flow, air, calorimetric, 196x75x475mm, R 2", 18-36V DC, 1x relay contact NO, 4-20mA, M12 plug connector 5-pin, plastic PC, pressure resistance 16bar, with display, parameterization, RS-485



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

Electrical features

Number of switching outputs	1
Display	TFT display
Type of switching function	Normally open contact (NO)
Type of analog output	4 - 20mA
Type of electrical connection	Connector M12
Type of switching output	Relay contact
Type of interface connection	Plug-in connection M12
Rated switching current	150 mA
Setting procedure	Parameterization
Coding of interface connection	A
Load resistance (current output)	500 kOhm
No-load current	120 mA
Switching voltage	48 V
Measurement principle	calorimetric
Number of pins of interface connection	5
Supported communication interface	Modbus RTU
Operating voltage (DC)	18 - 36 V
Measuring accuracy	± 1.5 % of measuring range ± 0.3 % of measuring range end
ardTEEL_Schutzfunktionen	Short circuit protection Reverse polarity protection
ardTEEL_PolzahlDesElektrischenAnschlusses	5
ardTEEL_KodierungDesElektrischenAnschlusses	A

Mechanical features

Type of process connection	R2 inch
Design	Cuboid, integrated measuring section
Width	475 mm
Pressure resistance	16 bar
Height	195.9 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	33,33 - 19916,66 l/min
Measuring range flow velocity	0,18 - 185 m/s
Ambient temperature	-20 - 70 °C

Other features

Relative air humidity (non-condensing)	95 %
Reference medium / object	Air
ardTE00_Anwendungen	Pneumatic applications

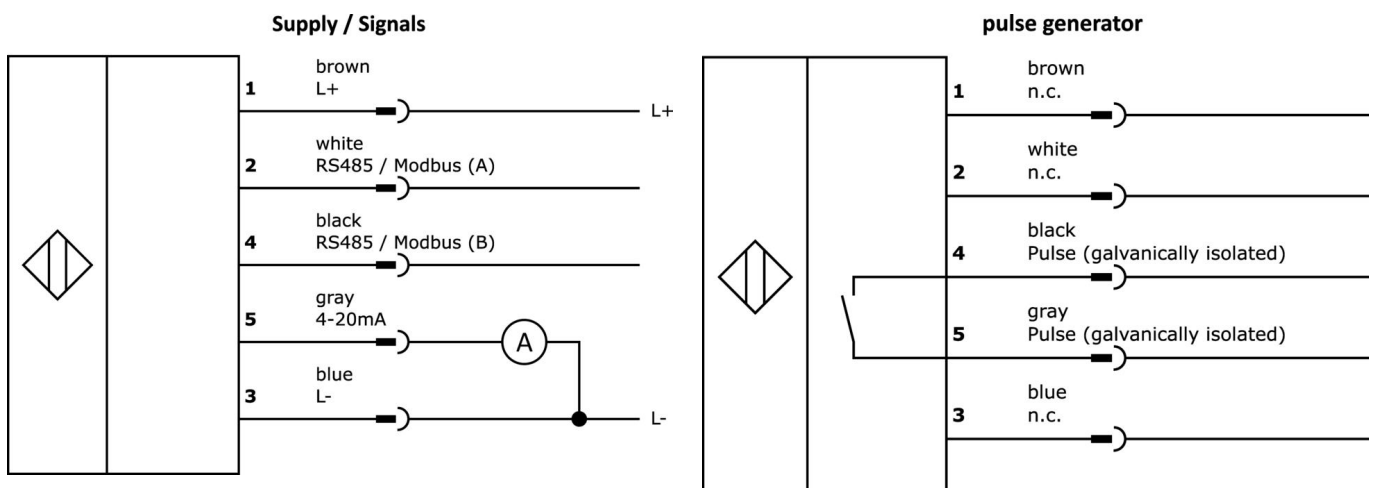
Classification

ETIM 8	EC002580 Flow monitoring device
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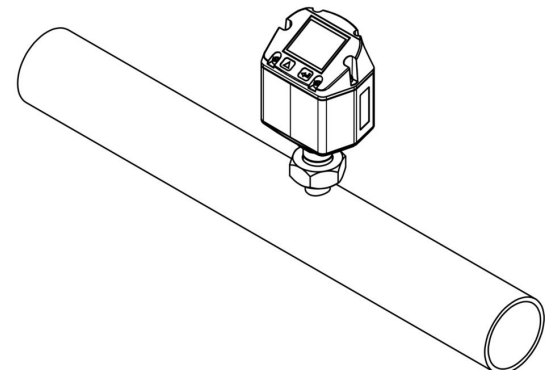
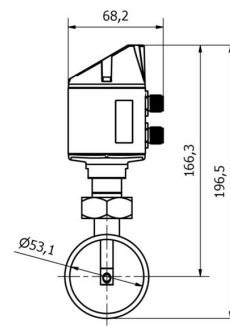
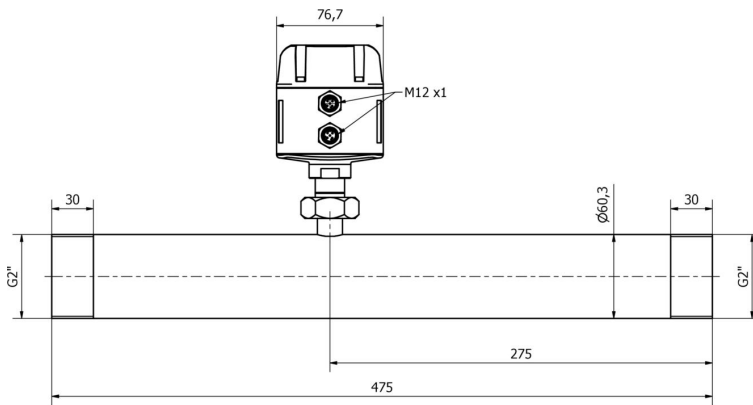
More

IPF Product Group	725 compressed air and leakage measurement
packaging dimensions	500 x 165 x 235 mm
gross weight	2957 g
Customs tariff number	90268020
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

Connection




Dimensional drawing




Extract accessories program

VK205621




Connection cable, 2m, M12 socket 5-pin angular, free cable end, 5x0.34mm², PUR (polyurethane), Ø6mm, 60V, -25-90°C, IP67, shielded, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

VK205625




Connection cable, 2m, M12 socket 5-pin straight, free cable end, 5x0.34mm², PUR (polyurethane), Ø6mm, 60V, -25-90°C, IP67, shielded, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

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

AS000015




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

AS000016




Screw plug, M32x1.5, stainless steel

VK003021



Cable socket, Angular, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

VK003025



Cable socket, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

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 IOOD files that may be required to operate your device can be downloaded free of charge from our homepage: www.ipf-electronic.com