

SL890020

Flow sensors • Consumption measurement for compressed air

Sensor flow, air, calorimetric, 175x75x194mm, R 1/4", 12-36V 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 probe is heated up from the inside a few degrees Celsius in relation to the flow medium, in which it protrudes. When the medium flows, the heat generated in the probe is dissipated through the medium. The temperature within the sensor is measured and compared with the likewise measured medium temperature. From the obtained temperature difference the flow state of each medium can be derived. These sensors are applied in areas such as monitoring of cooling systems, ventilation systems, pump dry running by checking the presence of liquid or gas flows.

Electrical features

Number of switching outputs	1
Number of switching points	2
Display	LED 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
Rated switching current	150 mA
Setting procedure	Parameterization
Short-circuit protection	Yes
No-load current	120 mA
Number of pins	5
Switching voltage	48 V
Reverse polarity protection	Yes
Measurement principle	calorimetric
Supported communication interface	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	R1/4 inch
Design	Cuboid, integrated measuring section
Width	194 mm
Pressure resistance	16 bar
Height	174.7 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	0,8 - 105 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

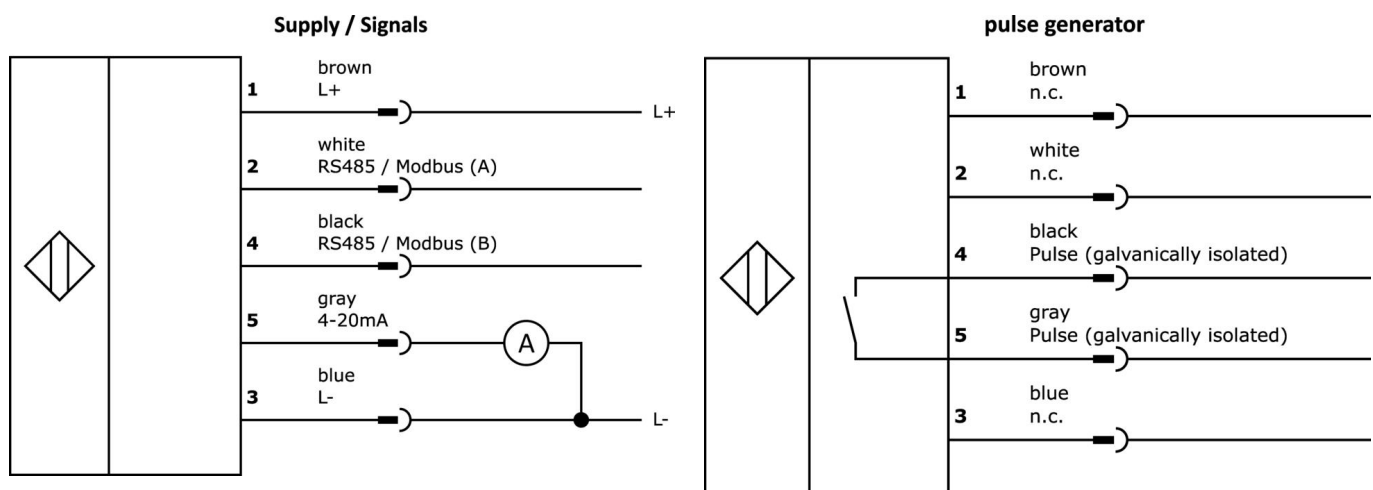
Classification

ETIM 8	EC002580 Flow monitoring device
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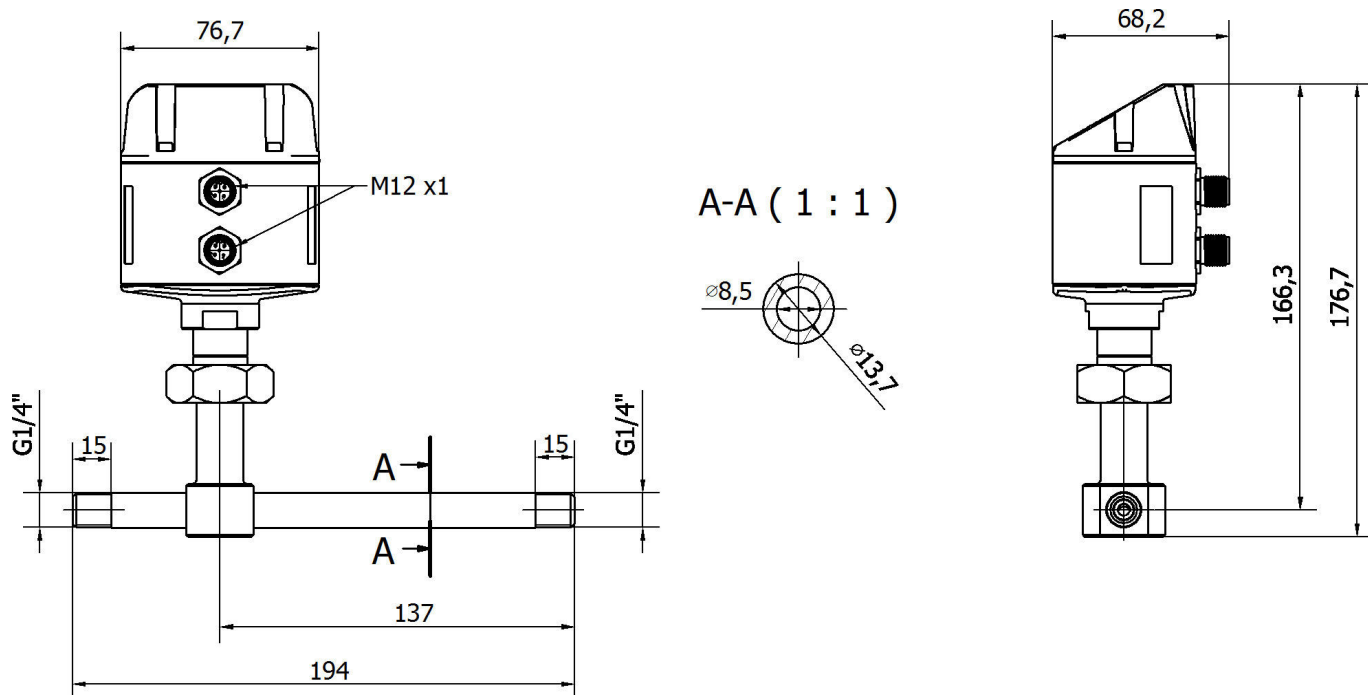
More

IPF Product Group	725 compressed air and leakage measurement
packaging dimensions	
gross weight	
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) 5pin 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) 5pin 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-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 IODD files that may be required to operate your device can be downloaded free of charge from our homepage: www.ipf-electronic.com