

SY90E293

Flow sensors • Consumption measurement for various gases

Sensor flow, natural gas, calorimetric, 176x75x300mm, R 1/2", 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

Mechanical features

Type of process connection	R1/2 inch
Design	Cuboid, integrated measuring section
Width	300 mm
Pressure resistance	16 bar
Height	176.4 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
with flow straightener	No
Measuring range flow volume	0 - 833,33 l/min
Ambient temperature	-20 - 70 °C

Other features

Suitable for	Gases
Mains pressure	300 mbar
Reference medium / object	Natural gas

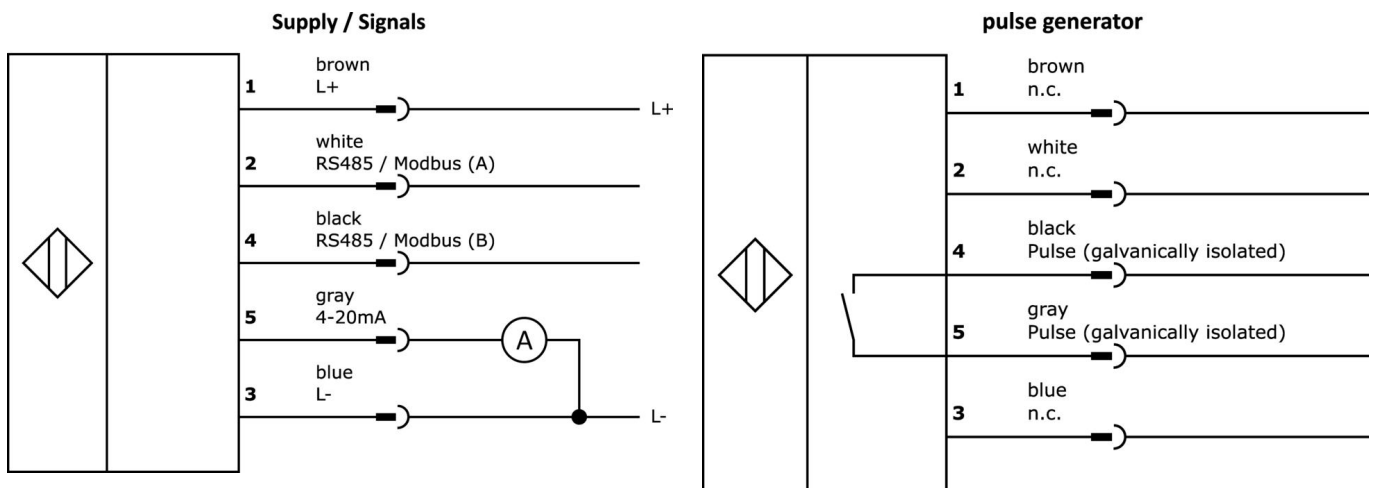
Classification

ETIM 8	EC002580 Flow monitoring device
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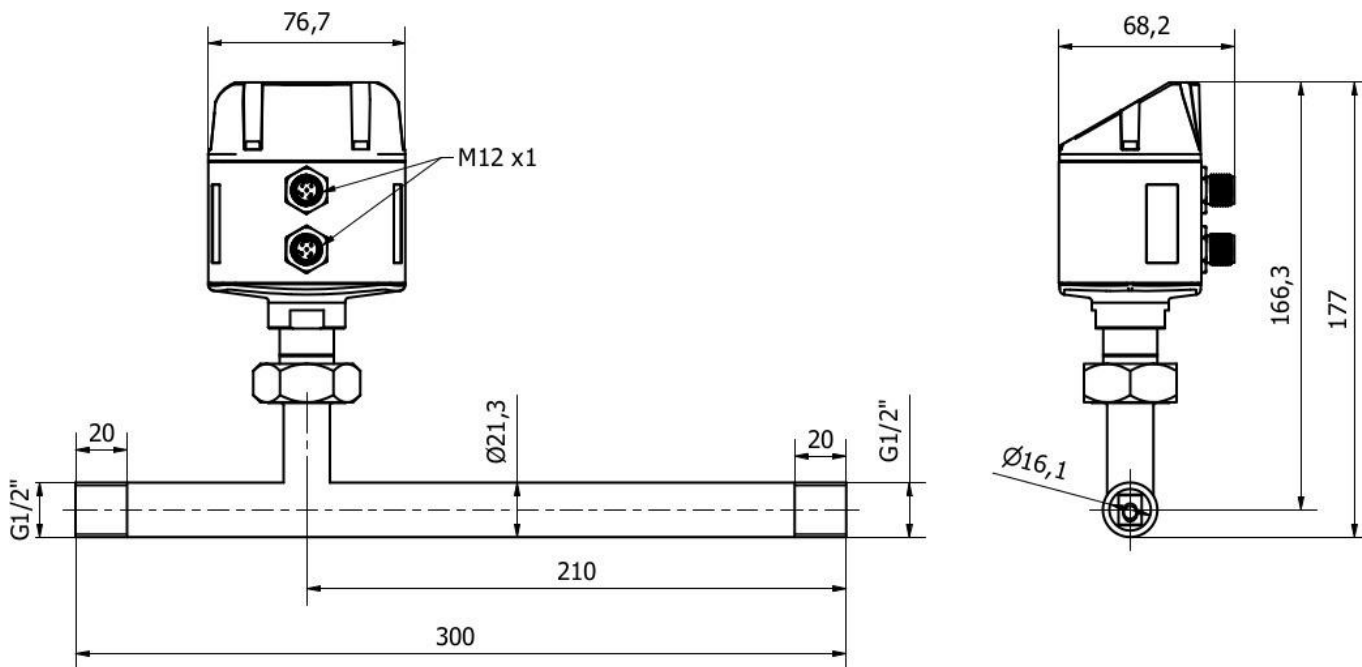
More

IPF Product Group	725 compressed air and leakage measurement
packaging dimensions	310 x 230 x 95 mm
gross weight	1056 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
 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-...

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