

SY87F001

Flow sensors • Consumption measurement for various gases

Sensor flow, natural gas, calorimetric, G 1/2", 18-36V DC, 4-20mA, M12 plug connector 5-pin, plastic PC, with display, parameterization, RS-485, 150mbar



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	140 mA
Number of pins	5
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	Reverse polarity protection Short circuit protection
ardTEEL_PolzahlDesElektrischenAnschlusses	5
ardTEEL_KodierungDesElektrischenAnschlusses	A

Mechanical features

Type of process connection	G1/2 inch
Design	Cuboid
Width	76.5 mm
Pressure resistance	50 bar
Height	75 mm
Length	416 mm
Probe length	220 mm
Medium temperature	-30 - 110 °C
Degree of protection (IP)	IP65
Housing material	Plastic PC
Sensing element material	Stainless steel 1.4301
Measuring range flow velocity	0,18 - 50 m/s
Ambient temperature	-20 - 70 °C

Other features

Suitable for	Gases
Mains pressure	150 mbar
Reference medium / object	Natural gas
Version	Insertion sensor

Classification

ETIM 8	EC002580 Flow monitoring device
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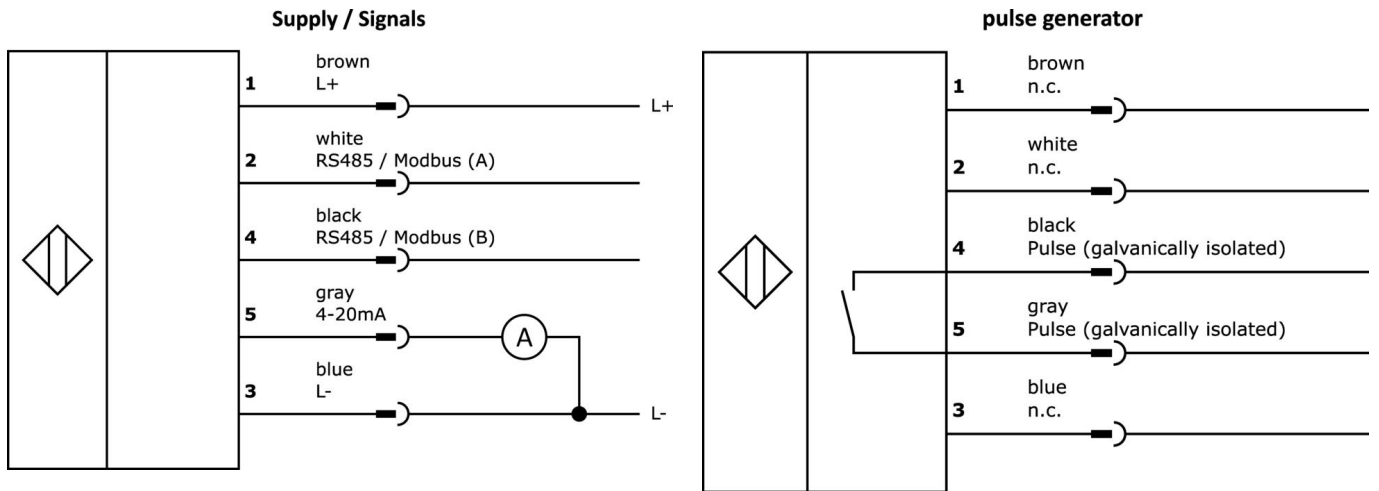
More

IPF Product Group	725 compressed air and leakage measurement
packaging dimensions	480 x 175 x 85 mm
gross weight	1122 g
Customs tariff number	90268020
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

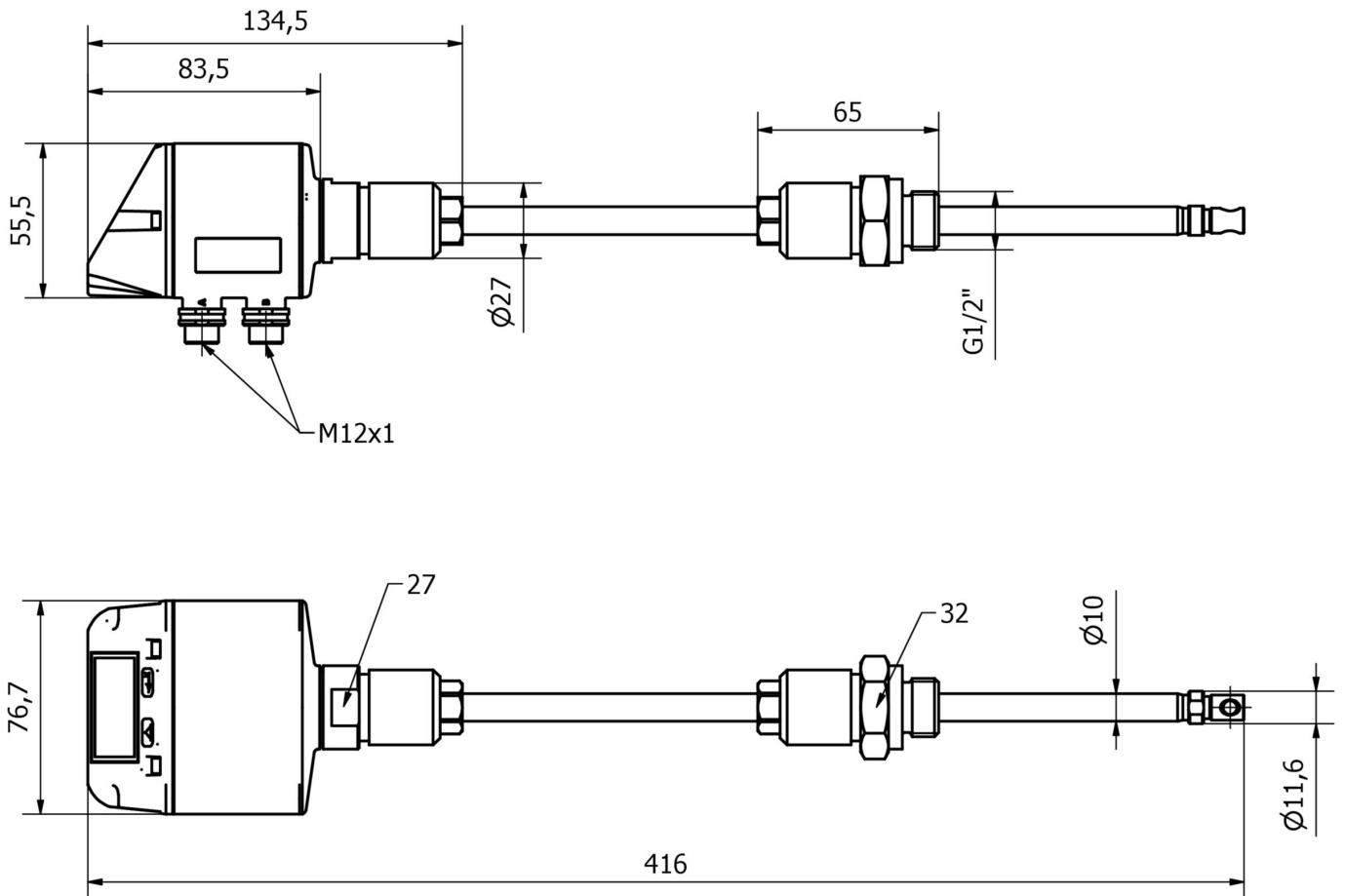
Important notes

/ For pressure > 10 bar - order high-pressure safety device additionally

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-free

AS000018

Accessories, high pressure safety device for insertion sensor, sensor length 220mm, max. 50bar

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