

SY87F007

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, Ethernet, 1000mbar



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

Display	LED 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	X-coded
Short-circuit protection	Yes
No-load current	140 mA
Number of pins	5
Reverse polarity protection	Yes
Measurement principle	calorimetric
Number of pins of interface connection	8
Supported communication interface	Ethernet Modbus RTU
Operating voltage (DC)	18 - 36 V
Optional: PoE (Power over Ethernet)	No
Measuring accuracy	± 1.5 % of measuring range ± 0.3 % of measuring range end
ardSOCA_ElektrischerAnschluss	M12 5-pin plug connector
ardSOCA_Betriebsspannung	18-36VDC

Mechanical features

Type of process connection	G1/2 inch
Design	Cuboid
Pressure resistance	50 bar
Length	220 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
with flow straightener	No
Measuring range flow velocity	,18 - 50 m/s
Ambient temperature	-20 - 70 °C
ardSOCA_Abmessungen	220mm high

Other features

Suitable for	Gases
Mains pressure	1000 mbar
Reference medium / object	Natural gas
Version	Insertion sensor
ardTE00_Anwendungen	Pneumatik-Anwendungen

Classification

ETIM 8

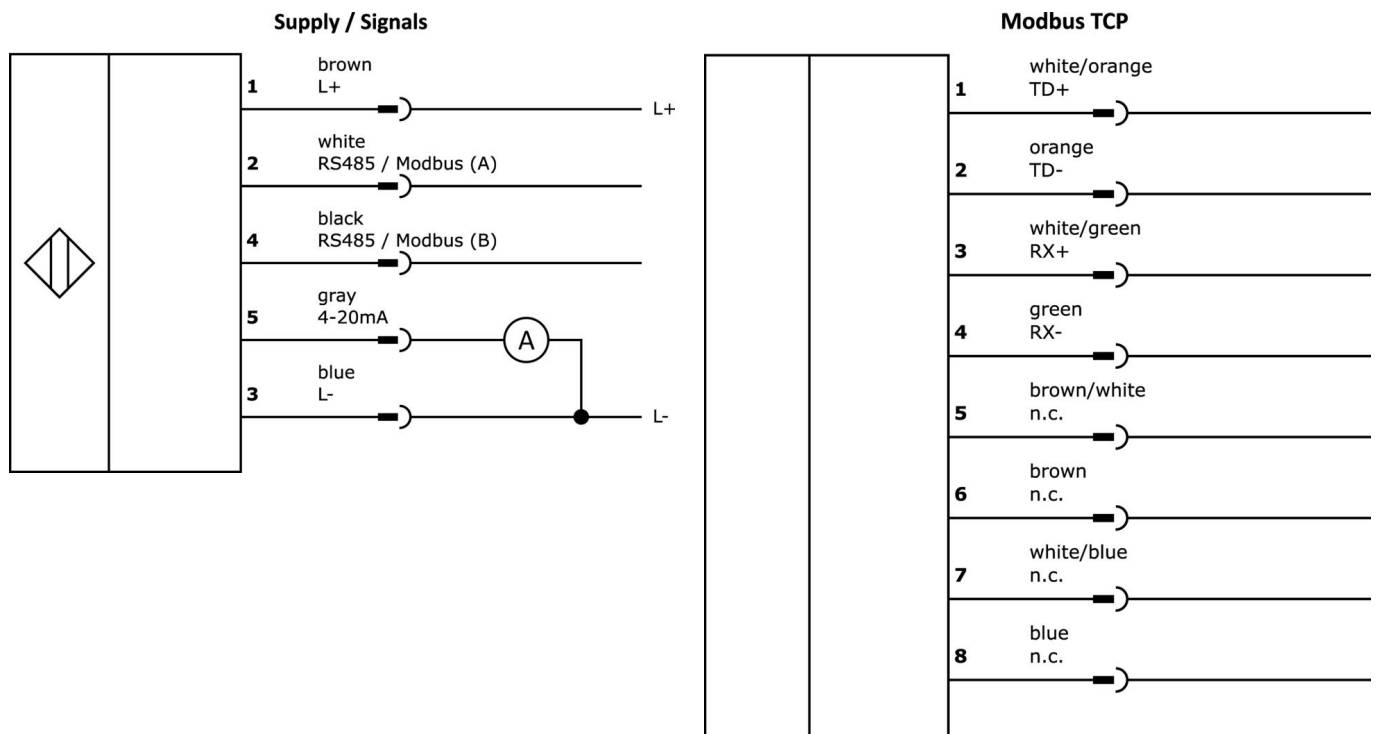
More

IPF Product Group	725 compressed air and leakage measurement
packaging dimensions	475 x 170 x 90 mm
gross weight	1089 g
Customs tariff number	90268020
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

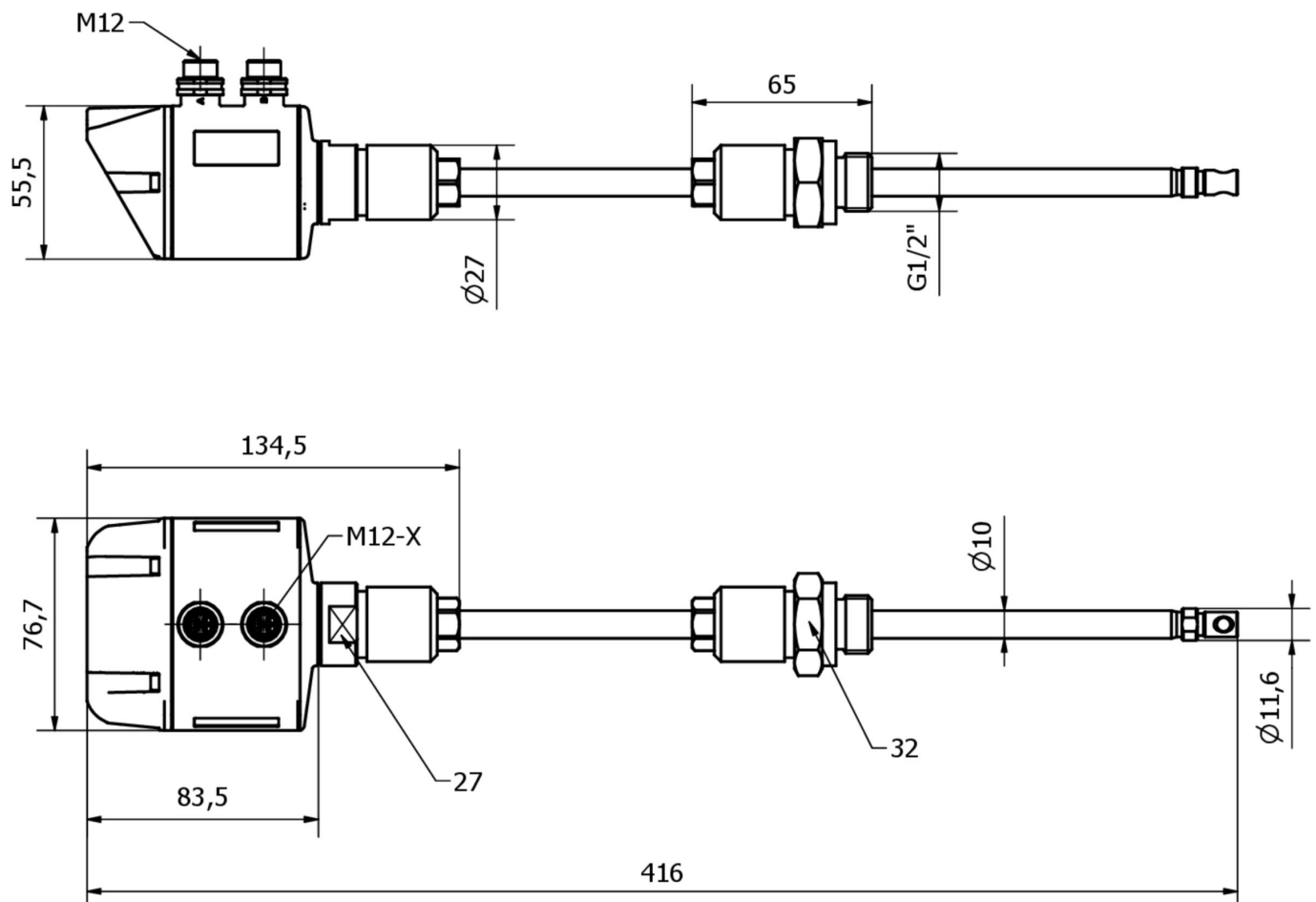
Important notes

/ 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-...

AS000018



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

VK108F28



Data cable, Connection cable, 1m, M12 Male (connector) 8pin Straight, X-coding, RJ45 Male (connector) 8pin Straight, 8x0.14mm², Category 5E, -40-75°C, TPU, Shielded

VK508F28



Data cable, Connection cable, 5m, M12 Male (connector) 8pin Straight, X-coding, RJ45 Male (connector) 8pin Straight, 8x0.14mm², Category 5E, -40-75°C, TPU, Shielded

BY000002



IIoT gateway, master module, 25x139x110mm, RS485, CAN, 6x DI/DO, 4x 0-10V / 4-20mA, USB, terminal, IP20

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.