

## SY87F008

### 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, 20mbar



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	TFT 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
Load resistance (current output)	500 kOhm
No-load current	140 mA
Measurement principle	calorimetric
Number of pins of interface connection	8
Supported communication interface	Ethernet   Modbus RTU
Operating voltage (DC)	18 - 36 V
Measuring accuracy	± 1.5 % of measuring range ± 0.3 % of measuring range end
ardSOCA_ElektrischerAnschluss	M12 plug connector
ardSOCA_Betriebsspannung	18-36VDC
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
ardSOCA_Abmessungen	416x76.5x75mm

**Other features**

Suitable for	Gases
Mains pressure	20 mbar
Reference medium / object	Natural gas
Version	Insertion sensor

**Classification**

ETIM 8
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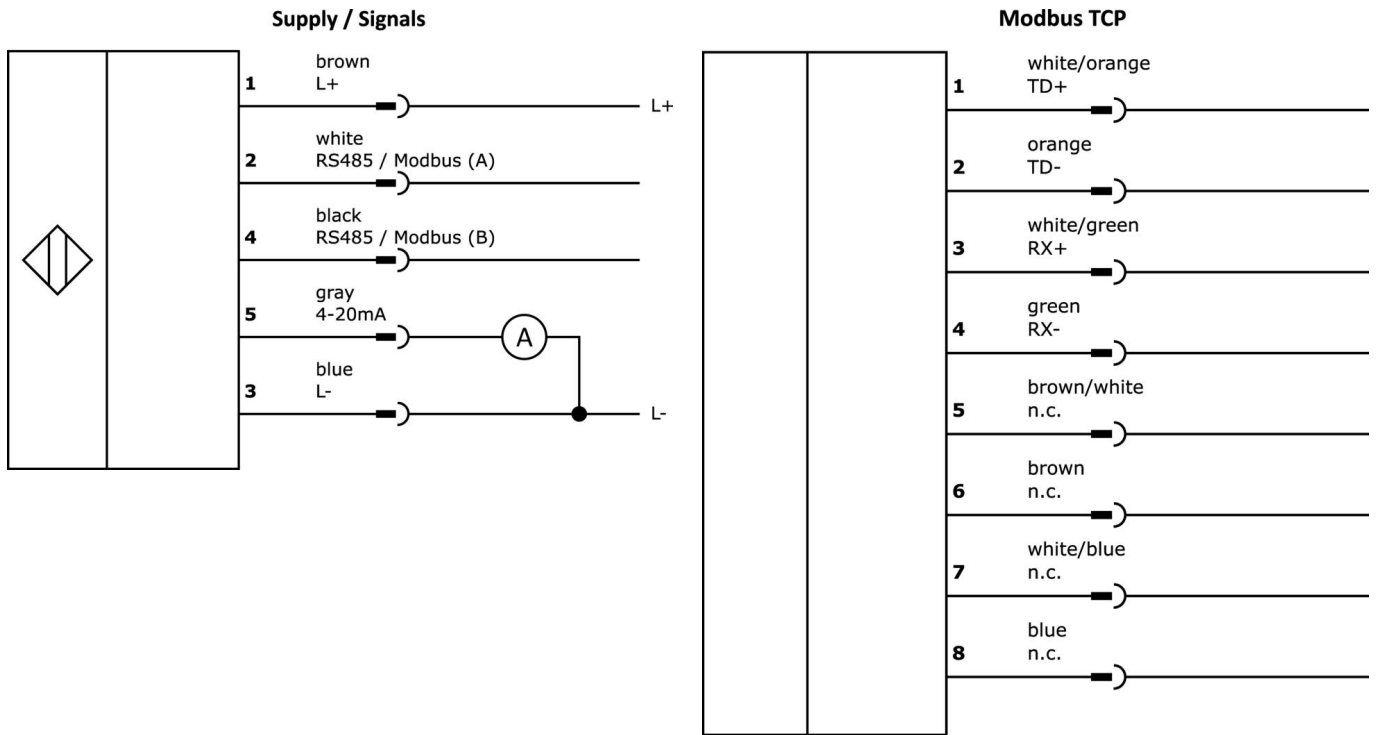
**More**

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

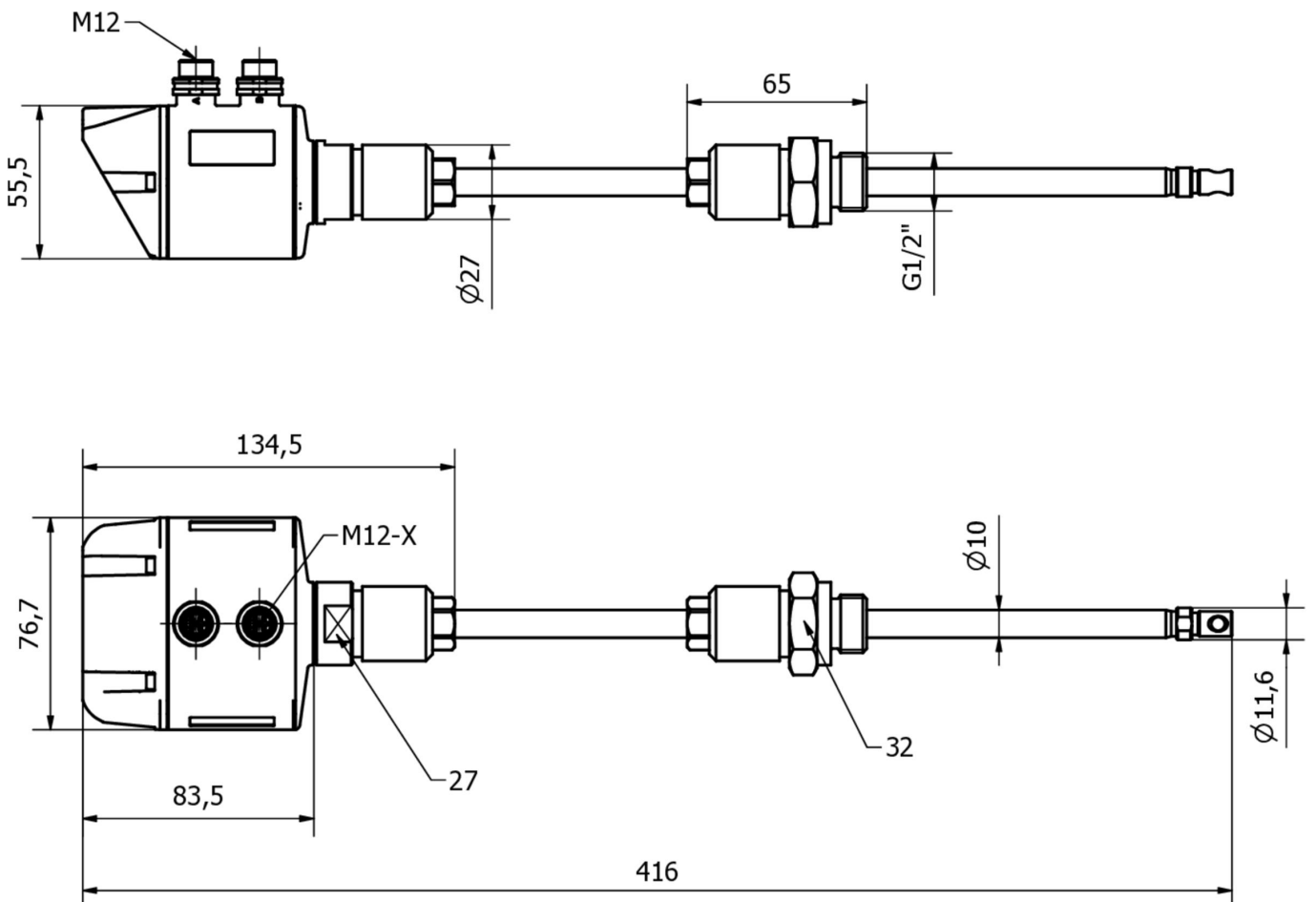
**Important notes**

/ 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, 5x0.34mm<sup>2</sup>, 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, 5x0.34mm<sup>2</sup>, 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, 8x0.14mm<sup>2</sup>, Category 5E, -40-75°C, TPU, Shielded

**VKB08F28**



**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.

/ 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](http://www.ipf-electronic.com)