

SY87F010

Flow sensors • Consumption measurement for various gases

Flow Sensor, Natural Gas, Calorimetric, G 1/2", 18-36 V DC, 4-20 mA, 5-pin M12 Connector, PC Plastic, With Display, Parameterization, Ethernet, 600 mbar



The function of the flow sensor involves the calorimetric principle. The sensor is heated from the inside by a few degrees Celsius relative to the flowing medium into which it protrudes. When the medium flows, the heat generated in the sensor is dissipated by the medium. The temperature within the sensor is measured and compared with the medium temperature, which is also measured. The flow condition for each medium can be determined from the resulting temperature difference. The application of these sensors includes use as compressed air consumption meters.

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
Electrical connection	
Operating voltage	
protection functions	short circuit protection reverse polarity protection
Number of pins of the electrical connection	5
Electrical connection code	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
dimensions	

Other features

Relative air humidity (non-condensing)	95 %
Mains pressure	20 mbar
Reference medium / object	Natural gas
Version	Insertion sensor

Classification

ETIM 8

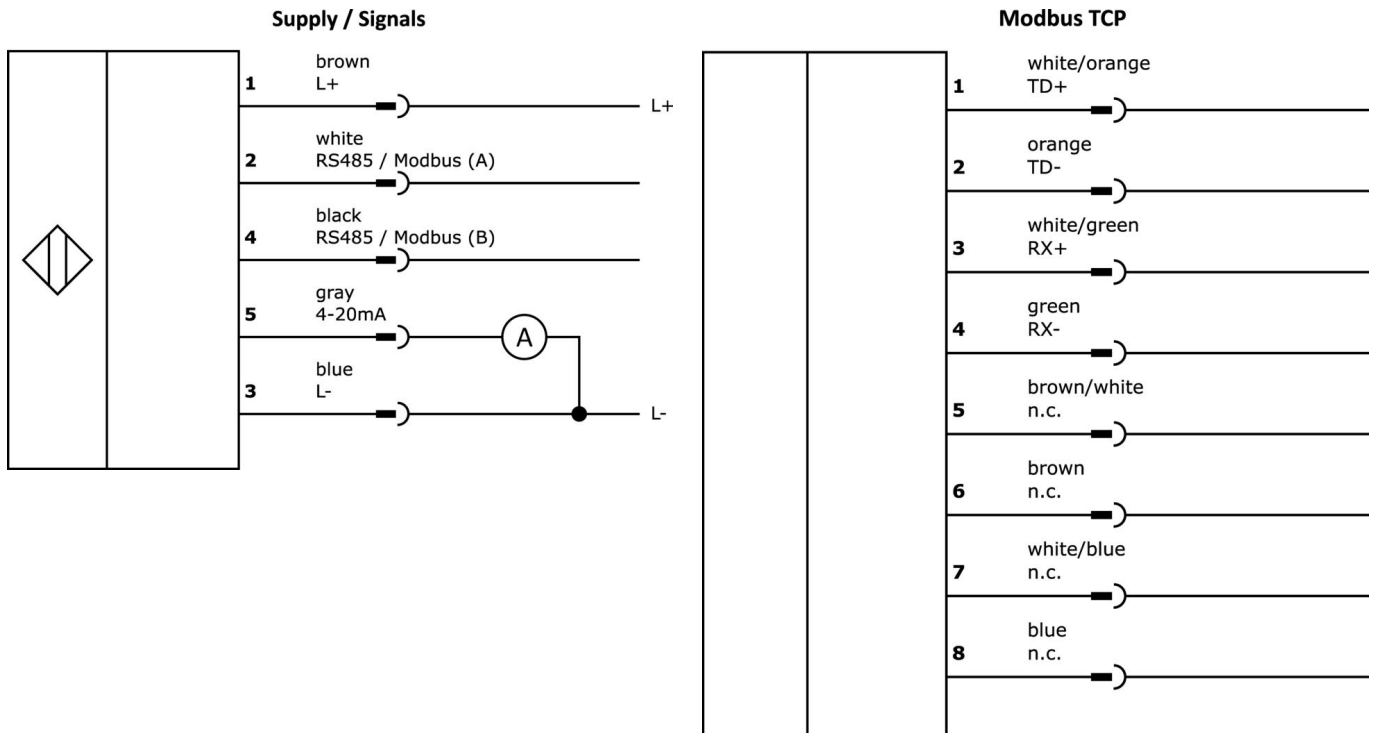
More

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

Important notes

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

Connection



Extract accessories program

VK205621



Connection cable, 2m, M12 socket 5-pin angular, free cable end, 5x0.34mm², PUR (polyurethane), Ø6mm, 60V, -25-90°C, IP67, shielded, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

VK205625



Connection cable, 2m, M12 socket 5-pin straight, free cable end, 5x0.34mm², PUR (polyurethane), Ø6mm, 60V, -25-90°C, IP67, shielded, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

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

VKB08F28



Data cable, connection cable, 20m, M12 connector 8-pin straight, X-coding, RJ45 connector 8-pin straight, 8x0.14mm², category 5E, -40-75°C, TPU, shielded

BY000002



IIoT Gateway, Master Module, 25x139x100 mm, RS485, OPC UA Server + Client, MQTT Broker Server + Client, Modbus TCP/IP Broker Client + Server, CAN, 6x DI/DO, 4x 0-10 V / 4-20 mA, USB, terminal blocks, 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