

## SY89F002

### Flow sensors • Consumption measurement for various gases

Flow sensor, argon / carbon dioxide, calorimetric, 175x75x1940mm, R 1/4", 12-36V DC, 1x NO, 4-20mA, M12 plug connector 5-pin, plastic PC, pressure resistance 16bar, with display, parameterization, Ethernet



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
Number of switching points	2
Display	LCD display (illuminated)
Type of switching function	Normally open contact (NO)
Type of analog output	4 - 20mA
Type of electrical connection	Connector M12
Type of interface connection	Plug-in connection M12
Rated switching current	150 mA
Setting procedure	Parameterization
Coding of interface connection	X-coded
No-load current	120 mA
Number of pins	5
Switching voltage	48 V
Measurement principle	calorimetric
Number of pins of interface connection	8
Supported communication interface	Ethernet
Operating voltage (DC)	12 - 36 V
ardSOCA_ElektrischerAnschluss	M12 5-pin plug connector
ardSOCA_Betriebsspannung	12-36VDC
ardTEEL_Schutzfunktionen	Verpolungsschutz   Kurzschlusschutz

**Mechanical features**

Type of process connection	R1/4 inch
Design	Cuboid, integrated measuring section
Width	194 mm
Pressure resistance	16 bar
Height	174.7 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
Measuring range flow volume	0,8 - 105 l/min
Measuring range flow velocity	0,18 - 50 m/s
Ambient temperature	-20 - 70 °C
ardSOCA_Abmessungen	75x194x174.7mm

**Other features**

Suitable for	Gases
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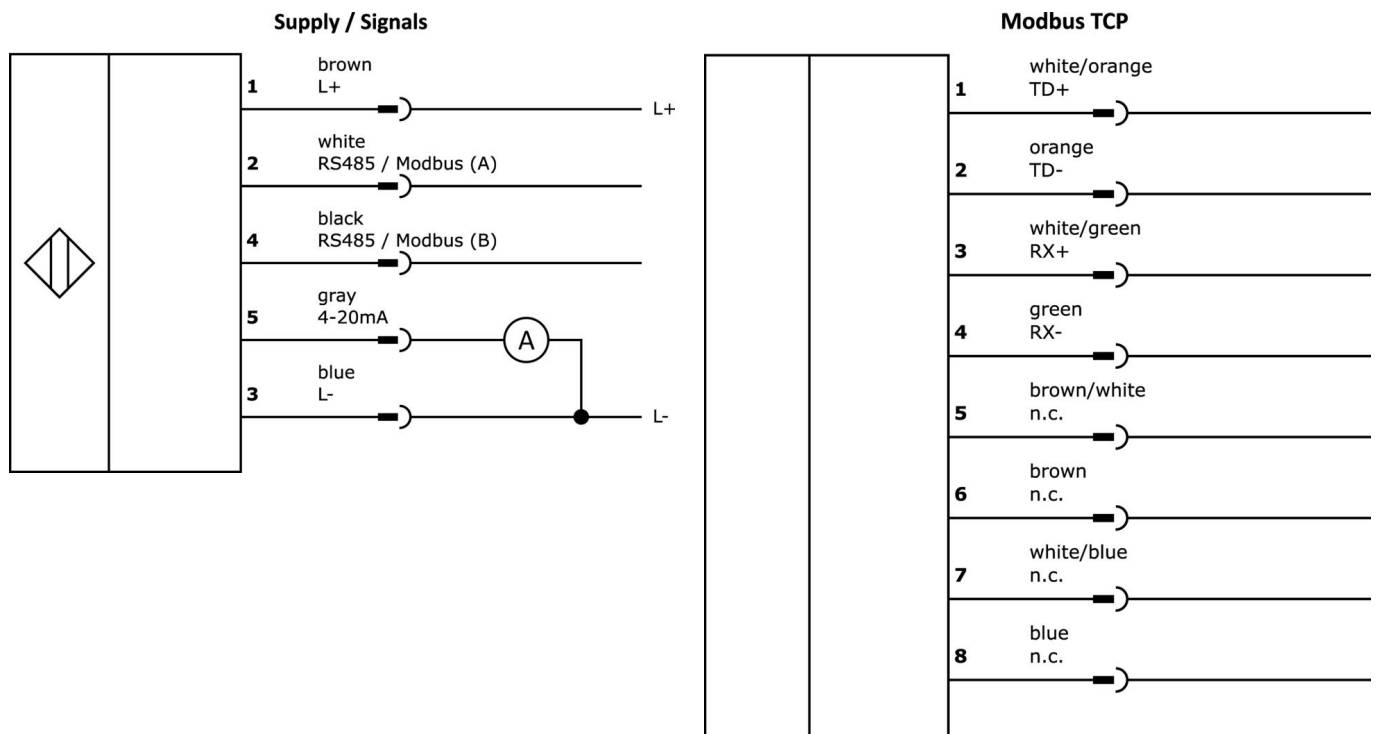
**Classification**

ETIM 8
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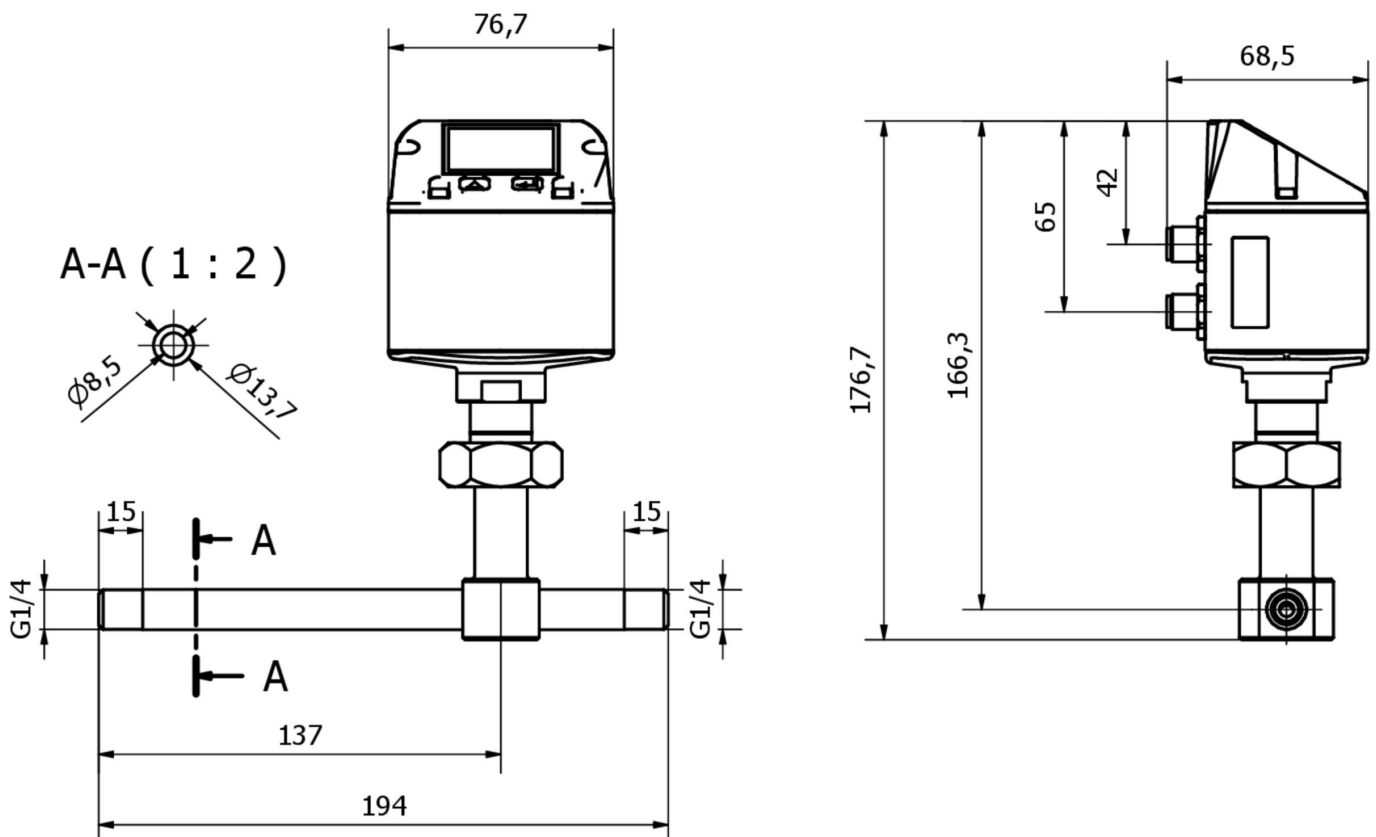
**More**

IPF Product Group	725 compressed air and leakage measurement
packaging dimensions	315 x 122 x 235 mm
gross weight	1046 g
Customs tariff number	90268020
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

## Connection



## Dimensional drawing



## Extract accessories program

### VK030F28



Connection cable, 0.3m, M12 socket 5-pin straight, M12 connector 5-pin straight, 5-core, PUR (polyurethane), suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

### VK060F28



Connection cable, 0.6m, M12 socket 5-pin straight, M12 connector 5-pin straight, 5-core, PUR (polyurethane), suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

### 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-free

### 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

### VK508F28



Data cable, Connection cable, 5m, M12 Male (connector) 8pin Straight, X-coding, RJ45 Male (connector) 8pin Straight, 8x0.14mm<sup>2</sup>, Category 5E, -40-75°C, TPU, Shielded

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