

SL870021

Flow sensors • Consumption measurement for compressed air

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



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-coded
Load resistance (current output)	500 kOhm
No-load current	140 mA
Number of pins	5
Switching voltage	48 V
Measurement principle	calorimetric
Supported communication interface	Modbus RTU
Operating voltage (DC)	18 - 36 V
Measuring accuracy	± 1.5 % of measuring range ± 0.3 % of measuring range end
ardSOCA_ElektrischerAnschluss	M12 5-pin plug connector
ardSOCA_Betriebsspannung	18-36VDC
ardTEEL_Schutzfunktionen	Verpolungsschutz Kurzschlusschutz

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 - 185 m/s
Ambient temperature	-20 - 70 °C
ardSOCA_Abmessungen	220mm long

Other features

Suitable for	Air
Reference medium / object	Air
Version	Insertion sensor
ardTE00_Anwendungen	Pneumatik-Anwendungen

Classification

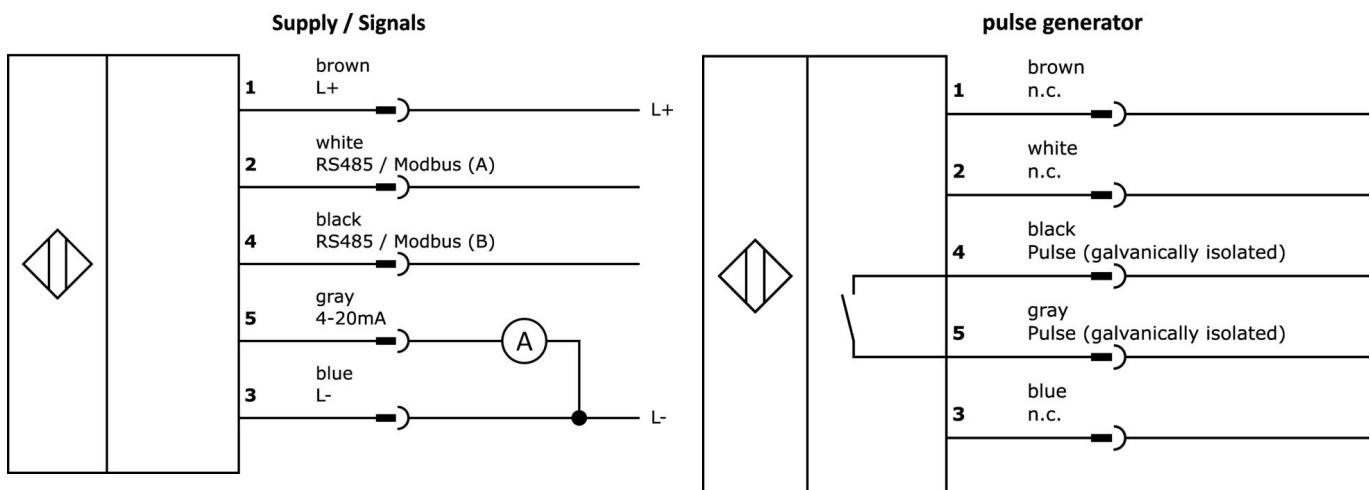
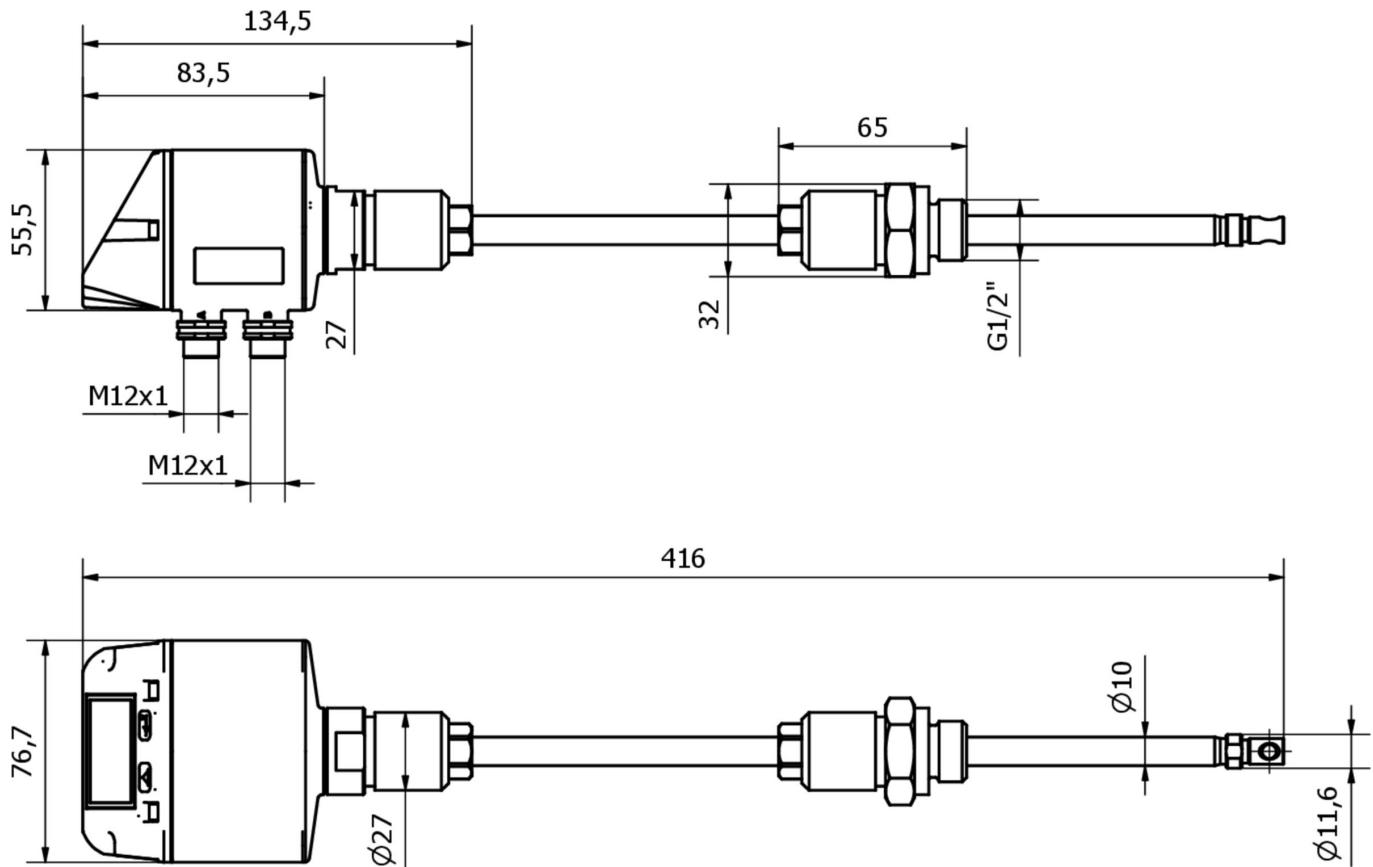
ETIM 8

More

IPF Product Group	725 compressed air and leakage measurement
packaging dimensions	470 x 170 x 90 mm
gross weight	1095 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

VK003021

Cable socket, Angular, Suitable for
self-assembly, Screw connection,
Ø3-6.5mm, 4A, 60V, -25-90°C,
M12 Female (socket) 5pin, IP67,
PBT

VK003025

Cable socket, Straight, Suitable for
self-assembly, Screw connection,
Ø3-6.5mm, 4A, 60V, -25-90°C,
M12 Female (socket) 5pin, IP67,
PBT

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

- I** Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.
- I** Never use these devices in applications where the safety of a person depends on their functionality.
- I** 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