

SL90F001

Flow sensors • Consumption measurement for compressed air

Sensor flow, air, calorimetric, 176x75x300mm, R 1/2", 18-36V DC, 4-20mA, M12 plug connector 5-pin, plastic PC, pressure resistance 16bar, with display, parameterization, RS-485, MBus



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	LCD 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	A-coded
No-load current	120 mA
Number of pins	5
Measurement principle	calorimetric
Supported communication interface	MBus RS485
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	R1/2 inch
Design	Cuboid, integrated measuring section
Width	300 mm
Pressure resistance	16 bar
Height	176.4 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	3,3 - 1500 l/min
Measuring range flow velocity	0,18 - 185 m/s
Ambient temperature	-20 - 70 °C
ardSOCA_Abmessungen	75x300x176,4mm

Other features

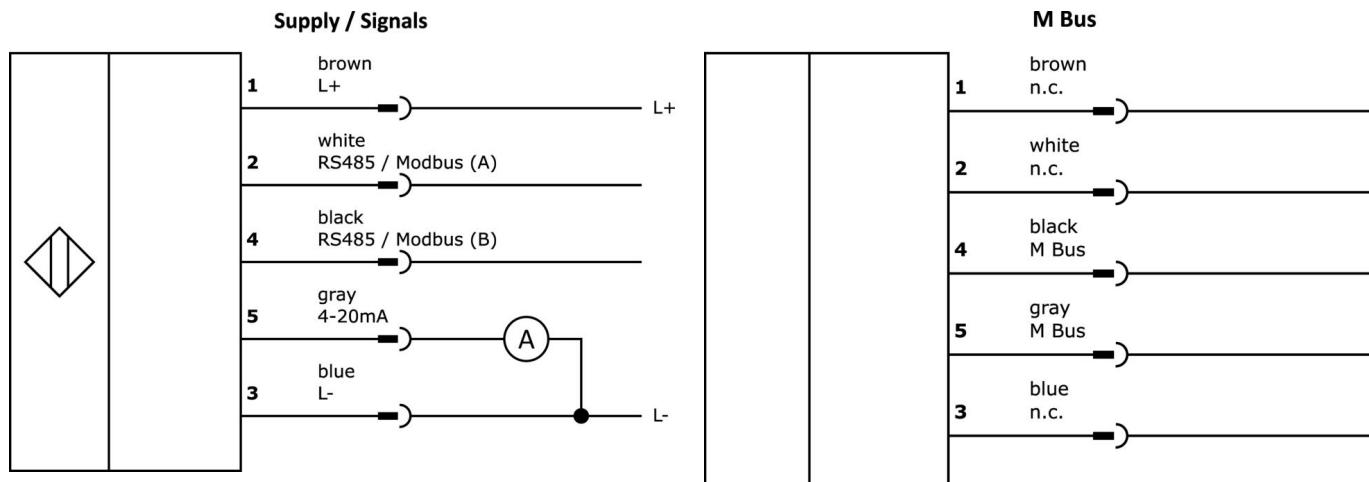
Reference medium / object	Air
ardTE00_Anwendungen	Pneumatik-Anwendungen

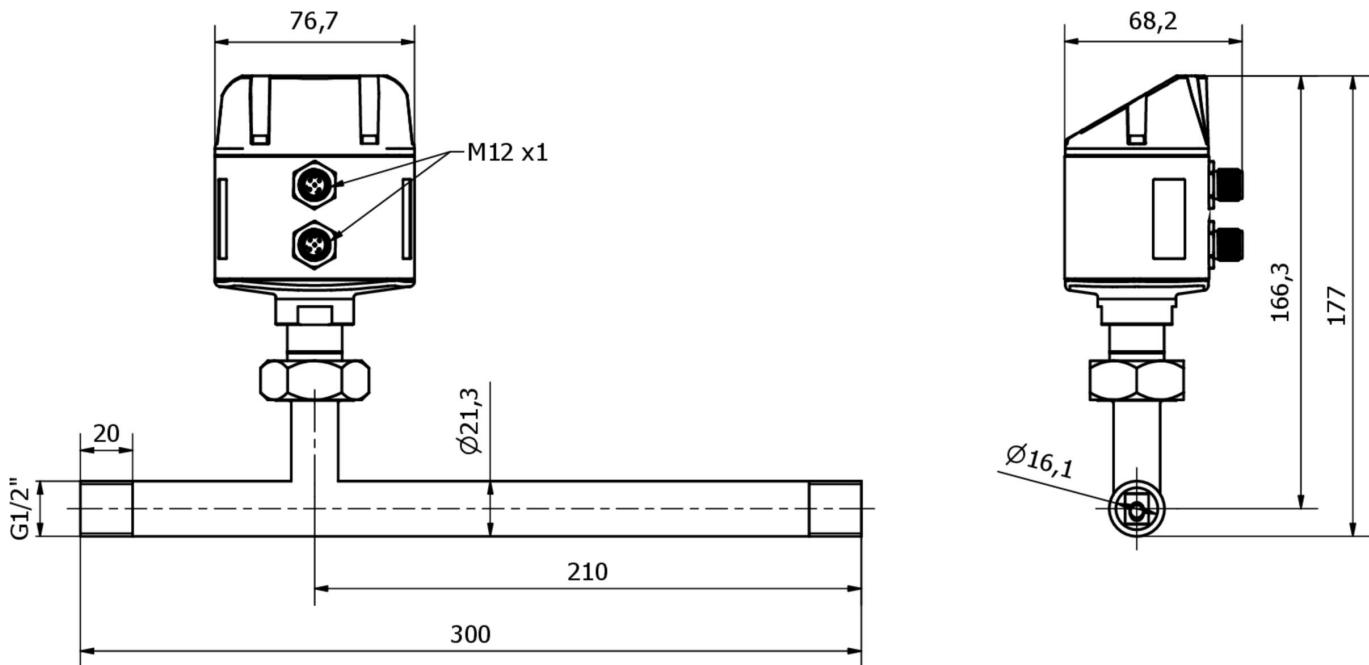
Classification

ETIM 8

More

IPF Product Group	725 compressed air and leakage measurement
packaging dimensions	320 x 95 x 240 mm
gross weight	994 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, 5x0.34mm², 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-...

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