

SM890020

Flow sensors • Water consumption measurement

Flow sensor, water, magnetic-inductive, 72x68x68mm, G 1/4", 19-30V DC, push/pull programmable/configurable, 0/2-10V / 0/4-20mA, M12-connector 4pole, stainless steel 1.4404, pressure resistance 16bar, 0,01-1l/min



If an electrically conductive liquid moves across a magnetic field, a voltage is generated vertically to this magnetic field which is dependent on the flow velocity. This voltage is measured by electrodes located in the wall of the measuring tube. Microcontrollers evaluate this voltage, calculate the flow rate and show it on the display. An analog signal and a transistor switching output are available for further processing.

Electrical features

Number of switching outputs	2
Display	TFT display LED display
Type of switching function	Programmable/configurable
Type of analog output	0 - 10V 0 - 20mA 4 - 20mA 2 - 10V
Type of electrical connection	Connector M12
Type of switching output	Push-pull
Type of temperature sensor	PT1000
Rated switching current	200 mA
Setting procedure	Parameterization
Short-circuit protection	Yes
No-load current	200 mA
Number of pins	4
Relative repeat accuracy	0.2 %
Reverse polarity protection	Yes
Measurement principle	magnetic-inductive
Measuring accuracy of temperature	$\pm 2^{\circ}\text{C}$ (flow > 0.2m/S)
Minimum conductivity	20 $\mu\text{S/cm}$
Response time, flow t90 (alarm/pulse/frequency output)	0.1 s
Response time, flow t90 (analog output)	1 s
Response time, temperature t90 (signal output)	20 s
Operating voltage (DC)	19 - 30 V
Measuring accuracy	$\pm 0.8\%$ from measured value + 0.5% from end of measuring range)

Mechanical features

Type of process connection	G1/4 inch
Design	Cuboid
Width	72 mm
Pressure resistance	16 bar
Height	68 mm
Length	68 mm
Medium temperature	-20 - 70 °C
Degree of protection (IP)	IP67
Housing material	Stainless steel 1.4404
Sensing element material	Stainless steel 1.4404
Seal material at process connection	Plastic (FKM)
Display window material	Plastic (PMMA)
Inlet section	3 x nominal diameter
Outlet section	2 x nominal diameter
Maximum viscosity	70 mm ² /s
Measuring range flow volume	0,01 - 1 l/min
Ambient temperature	-20 - 60 °C

Other features

Suitable for	Conductive liquids
Reference medium / object	Water

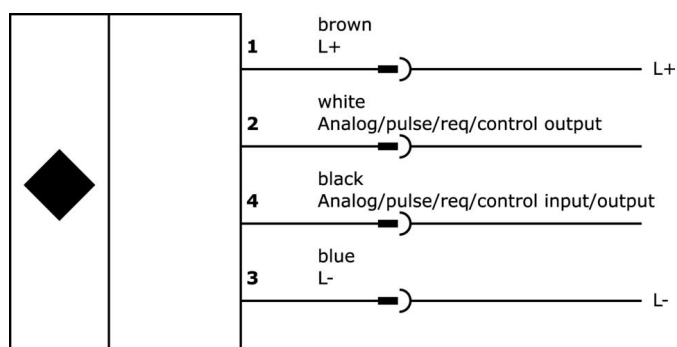
Classification

ETIM 8	EC002580 Flow monitoring device
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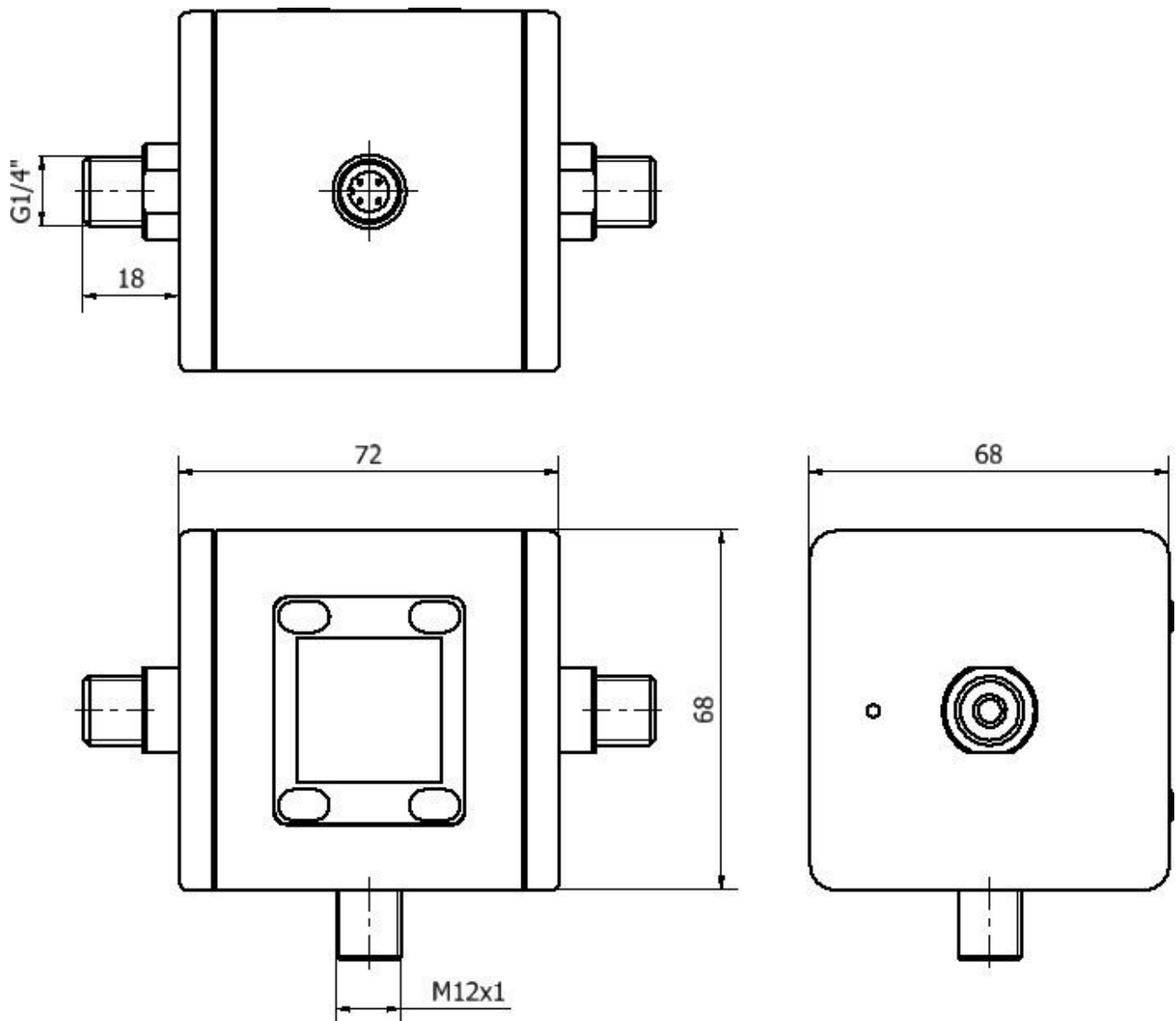
More

IPF Product Group	300 flow sensors
packaging dimensions	23 x 13.8 x 9.5 mm
gross weight	1194 g
Customs tariff number	90261021
WEEE number	40951076
POP-compliant	Yes
Reach-compliant	Yes
RoHS-compliant	Yes

Connection



Dimensional drawing



Extract accessories program

AS000017



Accessories Clamp bracket set,
124x69,5x12mm, stainless steel

VK205321



Connection cable, 2m, M12
Female (socket) 4pin Angular, Free
conductor end, 4x0.34mm², PUR
(Polyurethane), Ø5.5mm, 250V, -
25-90°C, IP67, Shielded, Suitable
for trailing chain and torsion
resistant, Oil and cooling
lubricants, Welding area, Silicon...

VK205325



Connection cable, 2m, M12
Female (socket) 4pin Straight, Free
conductor end, 4x0.34mm², PUR
(Polyurethane), Ø5.5mm, 250V, -
25-90°C, IP67, Shielded, Suitable
for trailing chain and torsion
resistant, Oil and cooling
lubricants, Welding area, Silico...

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-...

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.