

SM900020

Flow sensors • Water consumption measurement

Flow sensor, water, magnetic-inductive, 72x68x68mm, G 1/2", 19-30V DC, push/pull programmable/configurable, 0/2-10V / 0/4-20mA, M12-connector 4pin, stainless steel 1.4404, pressure resistance 16bar, 0,03-3l/min



If an electrically conductive liquid moves across a magnetic field, a voltage is generated perpendicular to this magnetic field that 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 | $\leq \pm$ (0.8% from measured value + 0.5% from end of measuring range) |

Mechanical features

| | |
|-------------------------------------|------------------------|
| Type of process connection | G1/2 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 | 0,03 - 3 l/min |
| Ambient temperature | -20 - 60 °C |

Other features

| | |
|---------------------------|--------------------|
| Suitable for | Conductive liquids |
| Reference medium / object | Water |

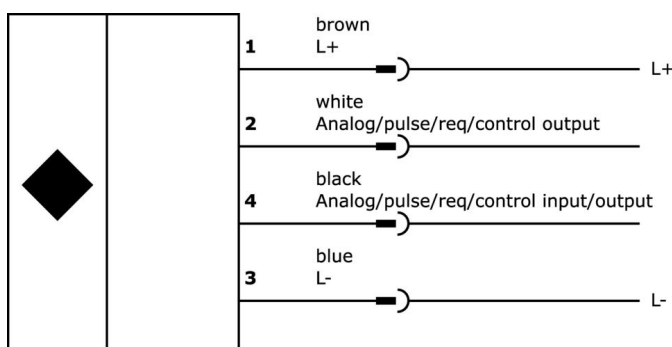
Classification

| | |
|--------|---------------------------------|
| ETIM 8 | EC002580 Flow monitoring device |
|--------|---------------------------------|

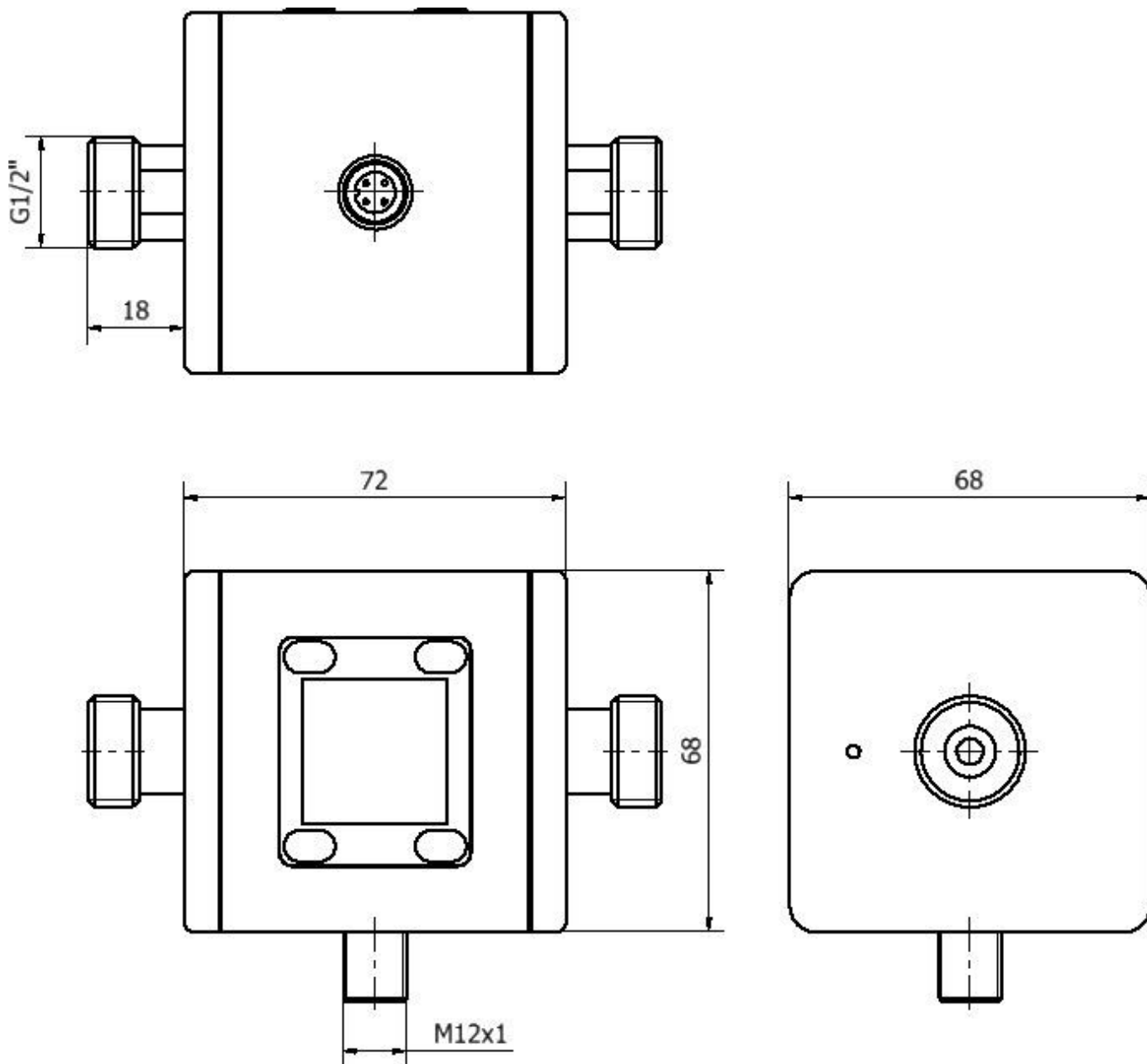
More

| | |
|-----------------------|-------------------|
| IPF Product Group | 300 flow sensors |
| packaging dimensions | 210 x 138 x 95 mm |
| gross weight | 1202 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.