

## SM920020

### Flow sensors • Water consumption measurement

Flow sensor, water, magnetic-inductive, 72x68x68mm, G 1", 19-30V DC, push/pull programmable/configurable, 0/2-10V / 0/4-20mA, M12-connector 4pin, stainless steel 1.4404, pressure resistance 16bar, 0,2-50l/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

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
Number of switching outputs	2
Display	TFT-Display - LED-Anzeige
Type of switching function	Programmable/configurable
Type of analog output	0V ... 10V / 2 ... 10V / 4mA ... 20mA / 0 ... 20mA
Type of electrical connection	Plug-in connection M12
Type of switching output	Push-pull
Type of temperature sensor	PT1000
Rated switching current	200 mA
Operating voltage (DC)	19 - 30 V
Flow measurement	Yes
Setting procedure	Parameterization
Short-circuit protection	Yes
No-load current	200 mA
Measuring accuracy of temperature	<math>\pm 2^{\circ}\text{C}</math> (flow > 0.2m/S)
Measuring principle of flow	Magnetic-inductive
Minimum conductivity	20 $\mu\text{S/cm}$
Number of pins	4
Relative repeat accuracy	0.2 %
Reverse polarity protection	Yes

**Mechanical features**

Type of process connection	G1 inch
Outlet section	2 x nominal diameter
Design	Cuboid
Width	72 mm
Pressure resistance	16 bar
Inlet section	3 x nominal diameter
Height	68 mm
Length	68 mm
Maximum viscosity	70 mm <sup>2</sup> /s
Medium temperature	-20 - 70 °C

**Other features**

Suitable media	Conductive liquids
Suitable for liquids	Yes
Cooling water circuits	Yes
Measuring accuracy	≤± (0.8% from measured value + 0.5% from end of measuring range)
Reference medium	Water
Consumption measurement	Yes

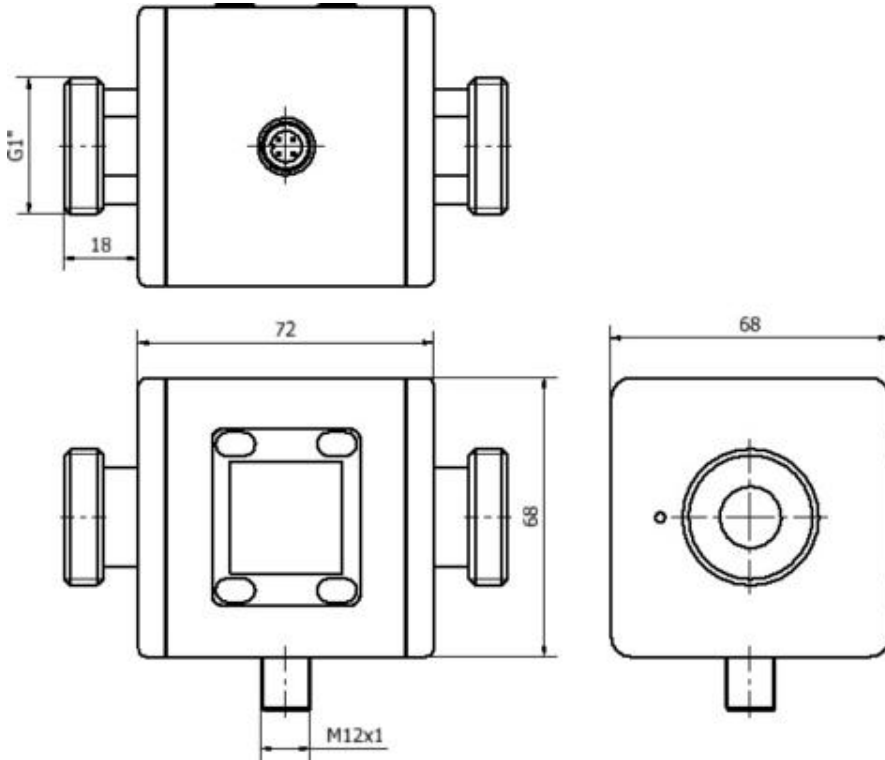
**Classification**

eClass 7.0	27371815
eClass 7.1	27371815
eClass 8.0	27371815
eClass 9.0	27371815
eClass 9.1	27371815
ETIM 8	EC002580 Durchflussüberwachungsgerät

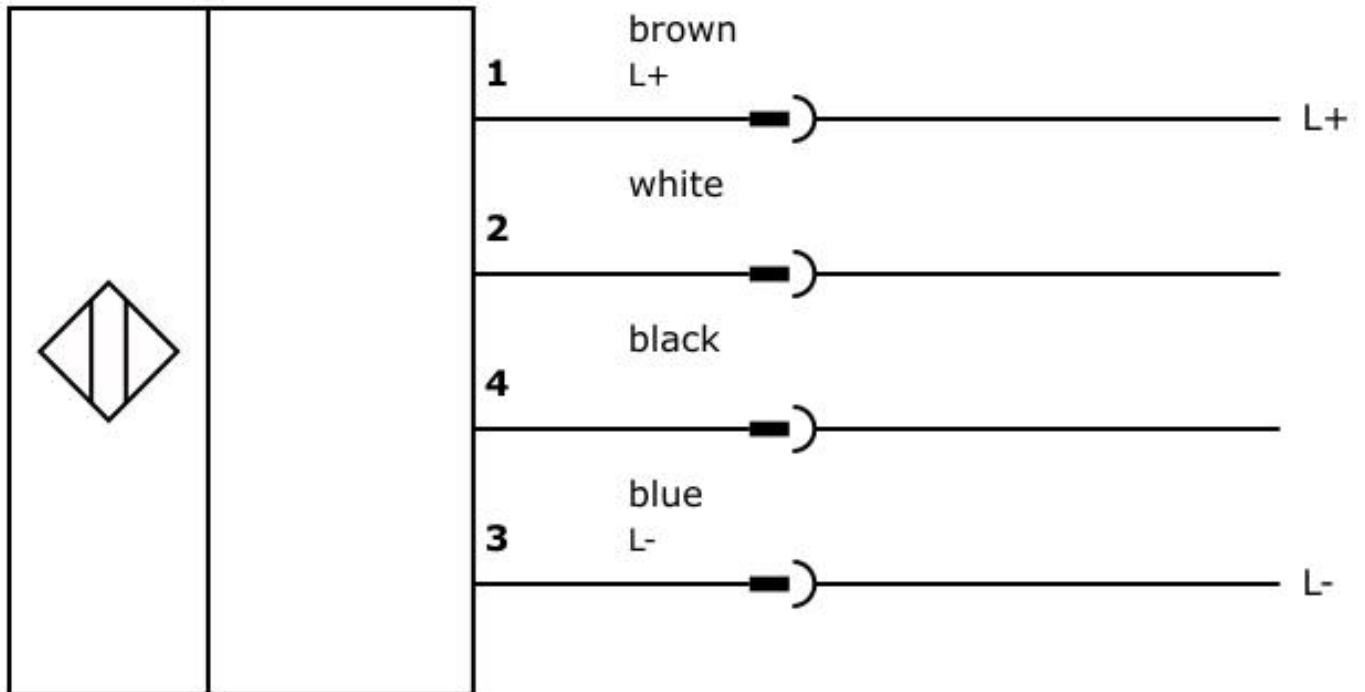
**More**

IPF Product Group	300 flow sensors
packaging dimensions	210 x 135 x 95 mm
gross weight	1253 g
Customs tariff number	90261021
WEEE number	40951076

**Dimensional drawing**



**Connection**



**Installation**



Mounting / installation may only be carried out by a qualified electrician!

**Disposal**



**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.

For suitable connection and mounting accessories, please refer to our website [www.ipf-electronic.com](http://www.ipf-electronic.com).