

SY89F002

Flow sensors • Consumption measurement for various gases

Flow sensor, argon / carbon dioxide, calorimetric, 175x75x1940mm, R 1/4", 12-36V DC, 1x NO, 4-20mA, M12 plug connector 5-pin, plastic PC, pressure resistance 16bar, with display, parameterization, Ethernet



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

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|--|-------------------------------------|
| Number of switching outputs | 1 |
| Number of switching points | 2 |
| Display | LCD display (illuminated) |
| Type of switching function | Normally open contact (NO) |
| Type of analog output | 4 - 20mA |
| Type of electrical connection | Connector M12 |
| Type of interface connection | Plug-in connection M12 |
| Rated switching current | 150 mA |
| Setting procedure | Parameterization |
| Coding of interface connection | X-coded |
| No-load current | 120 mA |
| Number of pins | 5 |
| Switching voltage | 48 V |
| Measurement principle | calorimetric |
| Number of pins of interface connection | 8 |
| Supported communication interface | Ethernet |
| Operating voltage (DC) | 12 - 36 V |
| ardSOCA_ElektrischerAnschluss | M12 5-pin plug connector |
| ardSOCA_Betriebsspannung | 12-36VDC |
| ardTEEL_Schutzfunktionen | Verpolungsschutz Kurzschlusschutz |

Mechanical features

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|-------------------------------|--------------------------------------|
| Type of process connection | R1/4 inch |
| Design | Cuboid, integrated measuring section |
| Width | 194 mm |
| Pressure resistance | 16 bar |
| Height | 174.7 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 | 0,8 - 105 l/min |
| Measuring range flow velocity | 0,18 - 50 m/s |
| Ambient temperature | -20 - 70 °C |
| ardSOCA_Abmessungen | 75x194x174.7mm |

Other features

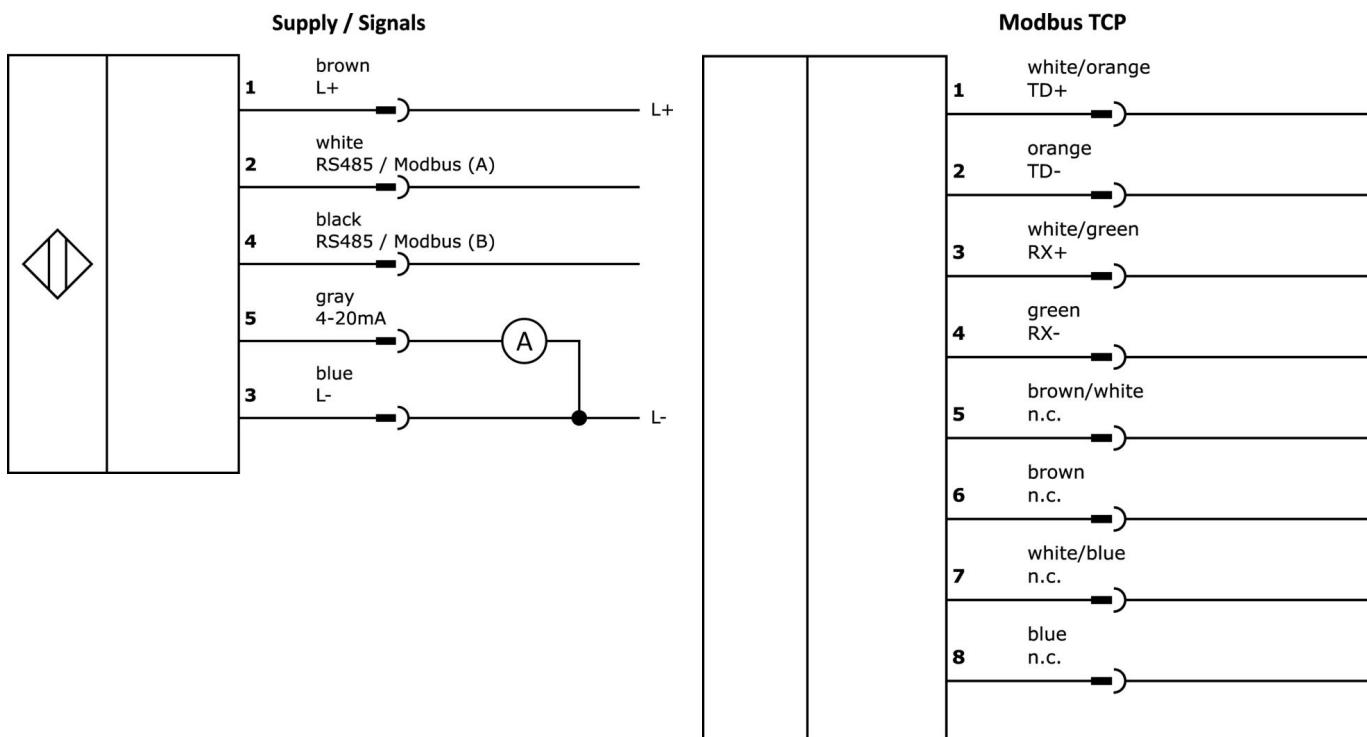
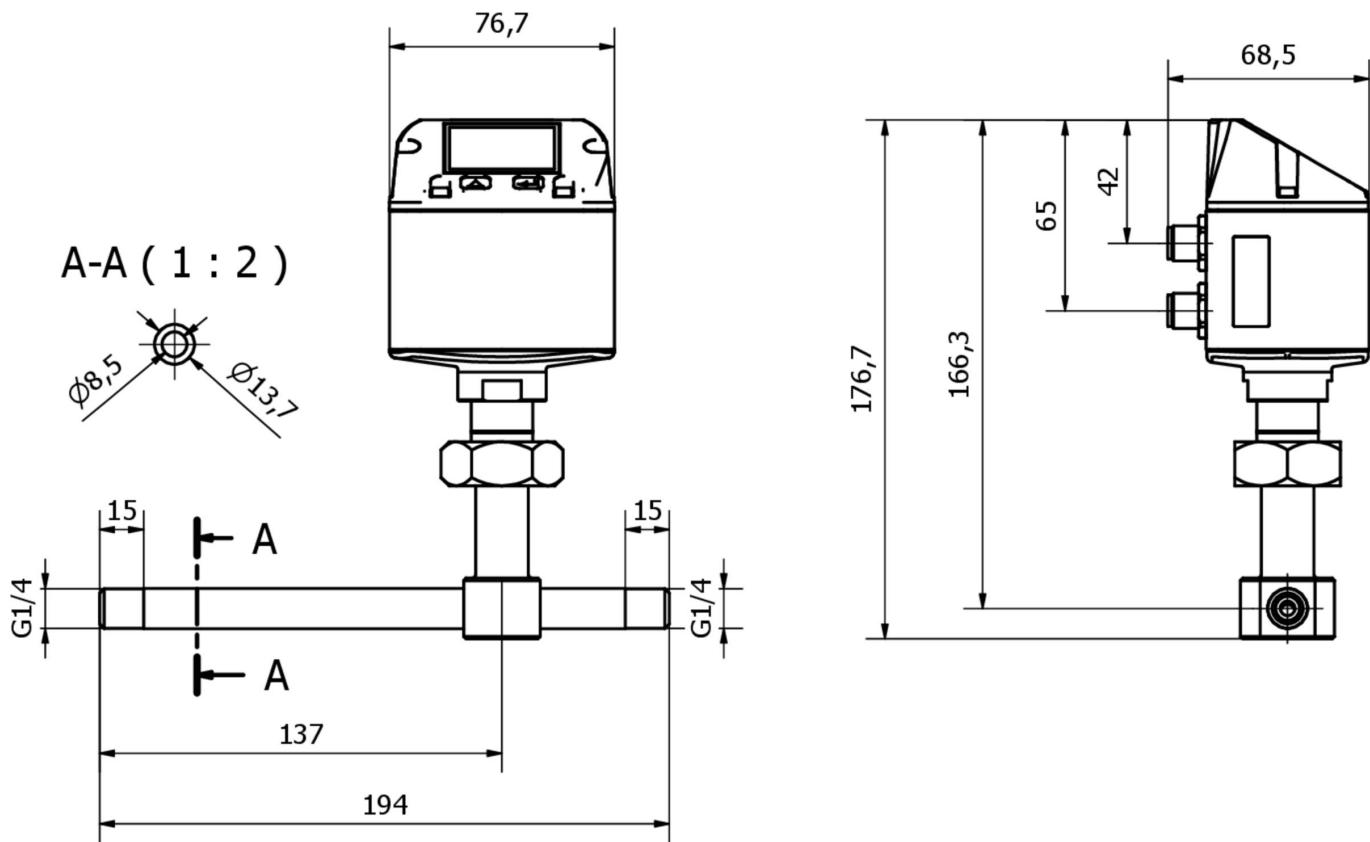
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|--------------|-------|
| Suitable for | Gases |
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Classification

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| ETIM 8 |
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More

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| IPF Product Group | 725 compressed air and leakage measurement |
| packaging dimensions | 315 x 122 x 235 mm |
| gross weight | 1046 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-...

VK108F28

Data cable, Connection cable, 1m,
M12 Male (connector) 8pin
Straight, X-coding, RJ45 Male
(connector) 8pin Straight, 8x0.
14mm², Category 5E, -40-75°C,
TPU, Shielded

VK508F28

Data cable, Connection cable, 5m,
M12 Male (connector) 8pin
Straight, X-coding, RJ45 Male
(connector) 8pin Straight, 8x0.
14mm², Category 5E, -40-75°C,
TPU, Shielded

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

- 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