





Sensor installation through a 1/2" ball valve under pressure

S 400 VERSATILE FLOW/CONSUMPTION SENSOR (INSERTION TYPE)

Features

- Insertion type sensor for installations under pressure
- Thermal mass flow, independent of pressure and temperature changes
- Velocity, flow and consumption can be displayed
- IP65 casing provides robust protection in rough industrial environment
- Very fast response time
- High accuracy and wide measuring range
- Tube diameters of 1" to 12". Other diameters on request

Volumetric flow ranges S 400

| DN | Di (mm) | S 400-S (m³/h) | S 400-M (m³/h) | S 400-H (m³/h) |
|-------|---|---|--|--|
| DN25 | 27.3 | 0.5~147.7 | 0.6~294.7 | 0.6~356.9 |
| DN32 | 36.0 | 0.9~266.3 | 1.2~531.5 | 1.2~643.5 |
| DN40 | 41.9 | 1.2~366.7 | 1.5~731.9 | 1.5~886.2 |
| DN50 | 53.1 | 2.0~600.1 | 2.5~1197.6 | 3~1450.0 |
| DN65 | 68.9 | 3.5~1026.5 | 5.0~2048.6 | 5~2480.4 |
| DN80 | 80.9 | 5.0~1424.4 | 7.0~2842.7 | 7~3441.9 |
| DN100 | 100.0 | 10~2183.3 | 12~4357.2 | 12~5275.7 |
| DN125 | 125.0 | 13~3419.6 | 18~6824.4 | 18~8263.1 |
| DN150 | 150.0 | 18~4930.1 | 25~9838.9 | 25~11913.1 |
| DN200 | 200.0 | 26~8785.6 | 33~17533.3 | 42~21229.5 |
| DN250 | 250.0 | 40~13743.9 | 52~27428.5 | 60~33210.7 |
| DN300 | 300.0 | 60~19814.8 | 80~39544.1 | 100~47880.4 |
| | DN25 DN32 DN40 DN50 DN65 DN65 DN80 DN100 DN100 DN125 DN120 DN200 | (mm) DN25 27.3 DN32 36.0 DN40 41.9 DN50 53.1 DN65 68.9 DN80 80.9 DN100 100.0 DN102 125.0 DN102 125.0 DN150 150.0 DN200 200.0 | (mm) (m³/h) DN25 27.3 0.5~147.7 DN32 36.0 0.9~266.3 DN40 41.9 1.2~366.7 DN50 53.1 2.0~600.1 DN65 68.9 3.5~1026.5 DN80 80.9 5.0~1424.4 DN100 100.0 10~2183.3 DN125 125.0 13~3419.6 DN150 150.0 18~4930.1 DN200 200.0 26~8785.6 DN250 250.0 40~13743.9 | (mm)(m³/h)(m³/h)DN2527.30.5~147.70.6~294.7DN3236.00.9~266.31.2~531.5DN4041.91.2~366.71.5~731.9DN5053.12.0~600.12.5~1197.6DN6568.93.5~1026.55.0~2048.6DN8080.95.0~1424.47.0~2842.7DN100100.010~2183.312~4357.2DN125125.013~3419.618~6824.4DN150150.018~4930.125~9838.9DN200200.026~8785.633~17533.3DN250250.040~13743.952~27428.5 |

Stated flow values are at standard conditions of Ps=0.1MPa and Ts=20 $^\circ\text{C}$ with medium air.

The table above shows flow ranges up to 300 mm pipe diameter at standard conditions in air. At other standard conditions and in other gases flow ranges are different and data are available on request.

In larger pipe diameters flow can also be measured.

Technical data S 400Measured unitm³/h, m³/min, l/min, cfm, m/s,
kg/min, kg/h, kg/sAccuracy±(3% of measured value + 0.3% full scale)MediumAir, gas, non explosiveOperating-30 ... 140 °C probe tubetorm product of the sector o

| temperature | -30 70 °C casing -10 50 °C casing with local display | |
|--------------------|---|--|
| Operating pressure | Up to 5.0 MPa | |
| Analogue output | Signal: 4 20 mA Scaling: 0 max range Max. load: ≤500 R | |
| Pulse output | 1 pulse per consumption unit, insulated switch output, max. 30 VDC, 20 mA | |
| Power supply | 12 30 VDC, 100 mA | |

S 400 VERSATILE FLOW/CONSUMPTION SENSOR (INSERTION TYPE)



Order form

Please use this order form for inquiries and orders. Please also provide us information about your application, such as nominal flow rate, pressure, etc. so that we can offer the most suitable device and prepare all settings for you.

| S 400 | Thread | Direction | Medium | Calibration | Display | Description | |
|----------|--------|-----------|--------|-------------|---------|---|----------|
| 0695 400 | 1 | | | | | S 400 insertion type flow sensor, 220mm shaft | |
| 0695 401 | 1 | | | | | S 400 insertion type flow sensor, 160mm shaft | |
| 0695 402 | 1 | | | | | S 400 insertion type flow sensor, 300mm shaft | |
| 0695 403 | 1 | | | | | S 400 insertion type flow sensor, 400mm shaft | |
| | А | | | | | G 1⁄2″ | Standard |
| A1005 | В | | | | | NPT ½"adaptor | |
| A1006 | С | | | | | PT ½" adaptor | |
| A1023 | | А | | | | Flow from left to right | |
| A1024 | | В | | | | Flow from right to left | Standard |
| A1007 | | | А | | | Medium Air | Standard |
| A1008 | | | В | | | Medium CO ₂ | |
| A1009 | | | С | | | Medium O2 (oil & grease free cleaned) | |
| A1010 | | | D | | | Medium N ₂ | |
| A1011 | | | E | | | Medium N2O | |
| A1012 | | | F | | | Medium Ar | |
| A1013 | | | G | | | Medium Natural gas (exact gas mix required) | |
| A1015 | | | Н | | | Others (specify the gas or gas mix) | |
| A1016 | | | I | | | Medium He (Real gas calibration) | |
| | | | | А | | Standard range calibration | Standard |
| A1020 | | | | В | | Max range calibration | |
| A1021 | | | | С | | High speed calibration | |
| | | | | | А | No display | Standard |
| A1022 | | | | | В | With display | |

Order code example: 0695 4021-AADBB: stands for: S 400 with 300 mm shaft, G1/2" thread connection, flow left to right, flow medium N2, max range calibration and display

| Order No. | Description | | | |
|-----------|---|--|--|--|
| 0553 0104 | Sensor cable 5 m, with M12 connector, open wires | | | |
| 0553 0105 | Sensor cable 10 m, with M12 connector, open wires | | | |
| 0554 2005 | Service kit for sensor configuration including software | | | |
| 0554 0007 | Power supply wall mountable, input: 85264 VAC, output: 24 VDC, 15W | | | |
| 0554 0107 | Mains unit 100-240 VAC/24 VDC, 0.5 A for S 400/S 201 Series, 2 m cable | | | |
| 3200 0001 | Re-Calibration of flow sensor with certificate | | | |
| 3200 0005 | Oil & grease free cleaned option for flow sensors (for Oxygen it is already included in A 1009) | | | |
| 3200 0020 | Real gas calibration in selected gas to ensure best accuracy | | | |
| 0553 0122 | Sensor cable, 5 pole, AWG24, 5.0 mm outer diameter, black (per meter) | | | |

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