





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	

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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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