FLOW SENSOR – OS 401

DESCRIPTION

OS 401 is based on the thermal mass flow principle. It measures volumetric standard flow over a wide measuring range. The result is pressure and temperature independent. The sensor installation into the pipe is done through a ½" ball valve. This makes it possible to do the installation under pressure without shutting down the compressed air line. The sensor is available in two measuring ranges and with or without display. The version with display shows the actual volumetric flow and the total consumption. Via the display keyboard all sensor settings can be accessed and adjusted. Various settings such as gas type, flow unit, inner diameter or reference standards can be set ex-factory. The OS 401 series offers a free android app for a wireless remote configuration of the sensor. With the app the user is able to see the live values and sensor settings can be checked and adjusted. Every sensor comes with a signal output, the OS401 offers an analog (4... 20 mA) and pulse output or a digital output (Modbus RTU). The outputs are used to read the flow and the total consumption on external systems.

APPLICATIONS [2]

- Air Compressor
- Compressed air piping
- After-cooler
- Cyclone condensate separator
- Pressure vessel/Air tank
- Air dryer
- Point of use

[1] For any other technical gas please contact us or your local dealer

[2] OS series can be used in variety of applications. For applications not listed please contact us or your local dealer.

TECHNICAL SPECIFICATION

Measured unit	m^3/h, m^3/min, l/min, cfm, m/s, kg/min, kg/h, kg/s
Accuracy	1.5% of reading +0.3% full scale
Repeatability	± 0.25% of reading
Sampling rate	> 10 samples / sec
Medium	Air, gas (non-corrosive gas)
Medium temperature	-30 ... 140 °C / relative humidity < 90% no condensation
Material	Metal parts: 1.4404 Casing: PC + ABS Sensor: Ceramic with glass coating
Classification	IP65
Electrical connection	2 x M12 (5 poles)
Operating pressure	0 … 5.0 MPa
Analogue output	Signal: 4 ... 20 mA Scaling: 0 ... max flow Max. load: ≤250 R
Pulse output	Signal: Isolated switch output, normally open, max. 30 VDC, 20mA Scaling: 1 pulse per consumption unit
Modbus output	Isolated RS-485 with Modbus/RTU protocol or Modbus/TCP output
Power supply	15 ... 30 VDC, 200 mA
Principle of measurement	Thermal mass flow
Sensor	Glass coated resistive sensor
Display:	2.4" colour graphics display with keypad
Transport temperature	Without display: -30 ... 70 ° C With display: -10 … 50 ° C

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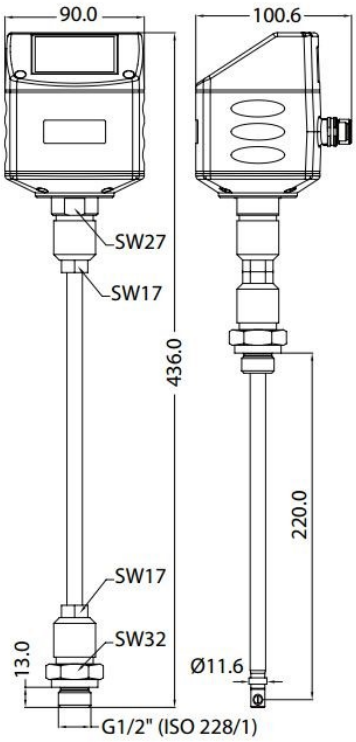
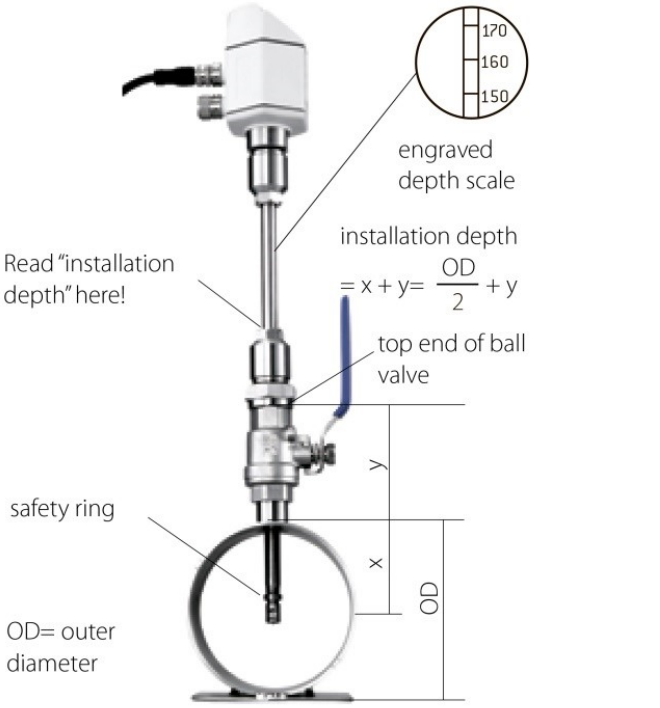
SIZES

INCH	DN	Di [mm]	FLOW CAPACITY [m³/h]		
			OS 401-S	OS 401-M	OS 401-H
1”	DN25	27.3	0.5 … 147.7	0.6 … 294.7	0.6 … 356.9
1¼”	DN32	36.0	0.9 … 266.3	1.2 … 531.5	1.2 … 643.5
1½”	DN40	41.9	1.2 … 366.7	1.5 … 731.9	1.5 … 886.2
2”	DN50	53.1	2.0 … 600.1	2.5 … 1197.6	3.0 … 1450.0
2½”	DN65	68.9	3.5 … 1026.5	5.0 … 2048.6	5.0 … 2480.4
3”	DN80	80.9	5.0 … 1424.4	7.0 … 2842.7	7.0 … 3441.9
4”	DN100	100.0	10 … 2183.3	12 … 4357.2	12 … 5275.7
5”	DN125	125.0	13 … 3419.6	18 … 6824.4	18 … 8263.1
6”	DN150	150.0	18 … 4930.1	25 … 9838.9	25 … 11913.1
8”	DN200	200.0	26 … 8785.6	33 … 17533.3	42 … 21229.5
10”	DN250	250.0	40 … 13743.9	52 … 27428.5	60 … 33210.7
12”	DN300	300.0	60 … 19814.8	80 … 39544.1	100 … 47880.4





Sensor installation through a ½” ball valve under pressure

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