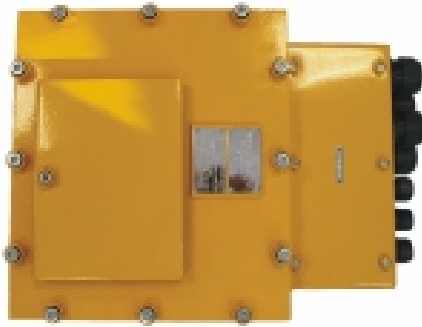


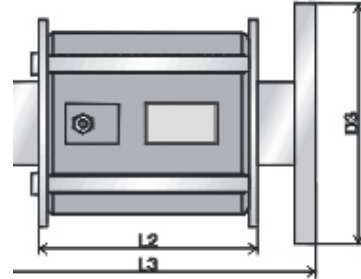


FLOW-01 – Induction Flow Meter

 Certificate: ATEX



Evaluation unit



Probe

Use:

A FLOW-01 flow meter serves for measuring a quantity of the flown-through liquid medium with the conductivity of 2 mS/cm. It is most often used for measuring a flow rate in water management and sewer systems, industrial and technological processes, etc.

Description and function:

According to the Faraday's law of electromagnetic induction a voltage is induced in a conductor moving in a magnetic field. In the case of liquid measuring by an induction flow meter the flowing liquid acts as a moving conductor and the induced voltage is directly proportional to the velocity of its flow. This voltage is sensed by two electrodes and led to measurement electronics, where it is evaluated. A volume of the flown-through medium is automatically calculated from the determined liquid flow velocity and the known pipeline cross-section.

The meter is designed for utilisation in an environment with explosion hazard in gassy mines. The evaluating unit is made of a fixed Ex d closure for the M2 environment and an Ex ib sensor for the M2 environment. The terminal area is Ex e protected.

Technical Parameters:

Model of the evaluation unit	I M2 Ex d e [ib] I
Sensor model	I M2 Ex ib I
Supply	230V AC
Power input	15VA
Operating position	vertical, bushings downwards
Maximum flow rate	Qmax = 1.380 m ³ /hour
Minimum flow rate	Qmin = 0.017 m ³ /hour
Sensor inner diameter	DN 6 to DN 150
Maximum cable length to the sensor	10 m, 4 m as standard
Connected conductor maximum cross-section wire	4mm ²
Ambient temperature	0°C - 40°C
Relative humidity	95% without condensation
Protection	IP 54
Dimensions	380x510 mm including bushings, height 210 mm
Weight	21 kg

Intrinsically safe parameters:

Current loop, terminals 6, 7

Uo	6.51V
Io	124mA
Po	0.202W
Co	2uF
Lo	1.5mH
Ui	6.51V
Ii	641mA
Ci	0 F
Li	0 H

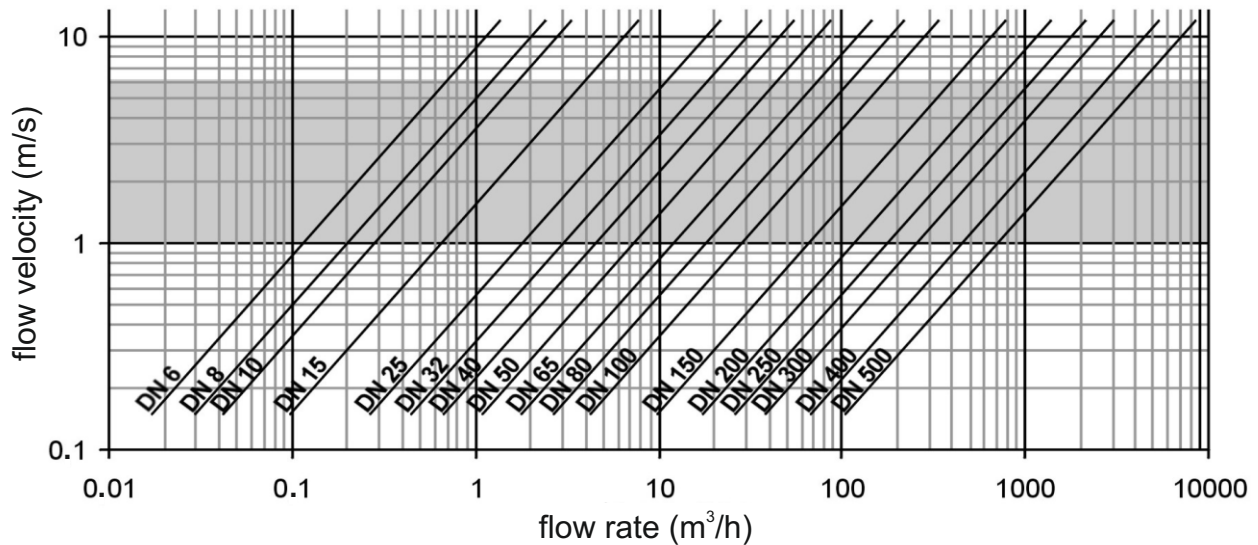
The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.



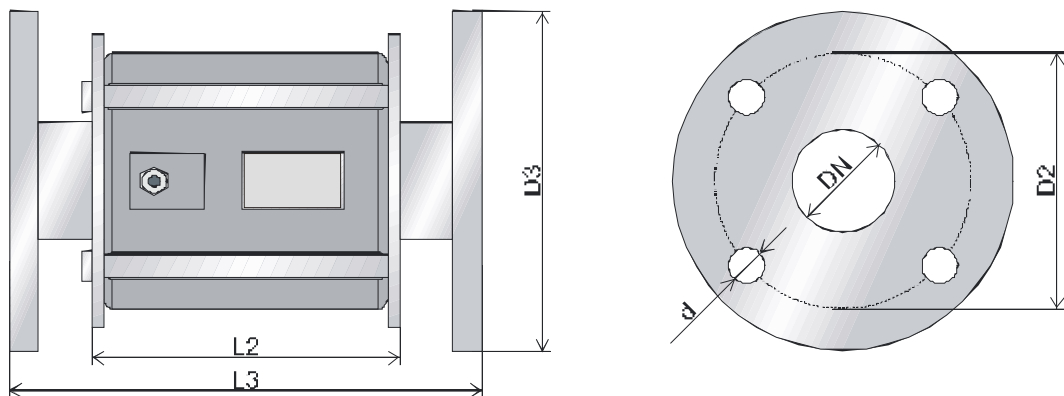
FLOW-01 – Induction Flow Meter

FLOW-01 – Induction Flow Meter

DN	mm	6	8	10	15	20	25	32	40	50	65	80	100	150
Q_{min}	m^3/h	0.017	0.03	0.042	0.098	0.18	0,27	0.45	0.68	1.08	1.80	2.70	4.20	9.75
Q_{nom}	m^3/h	0.567	1.00	1.40	3.25	6.00	9,00	15.0	22.5	36.0	60.0	90.0	140.0	325.0
Q_{max}	m^3/h	1.36	3.36	7.80	14.4	21.6	21,6	36.0	54.0	86.4	144.0	216.0	336.0	780.0



Sensor with a ceramic or rubber lining – flange-mounted



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