

DM04

Compact Magnetic Inductive Flow Meter -all Metal Version-

- for electrically conductive liquids
- regardless of viscosity, density, pressure or temperature
- virtually no pressure loss
- high measuring accuracy
- large measuring range span
- maintenance-free
- measuring range from 0...20 l/min to 0...250 l/min
- max. pressure 16 bar, max. temperature 90 °C



Description:

The magnetic inductive flow meter works without moving parts, is maintenance-free and has practically no pressure loss due to the free pipe cross-section. Measuring ranges from 0,5 to 250 l/min are available for this device.

Two output signal variants are available: Frequency output or analogue and frequency output.

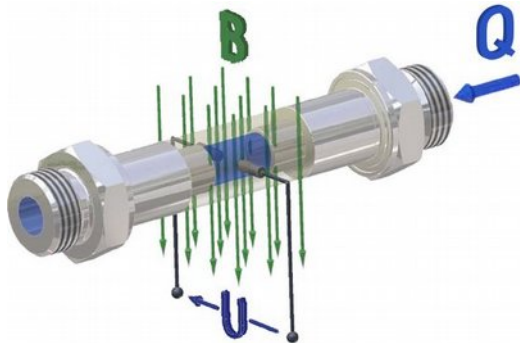
Convenience:

- no moving parts, therefore the DM04 is maintenance- and wear-free.
- no components protrude into the measuring tube, thus the pressure loss is kept very small and is not greater than with a pipeline of the same length.
- the measurement is independent of temperature, viscosity, concentration and pressure under normal operating conditions
- universally applicable due to the very wide measuring span
- foreign bodies carried along in the flow and viscous media interspersed with solids are also unproblematic.
- due to the compact design and the low price the DM04 is suitable for serial applications.

Operating Principle:

Magnetic-inductive flow measurement is based on Faraday's law of induction. The liquid to be measured (electrically conductive) flows perpendicular to a magnetic field. This induces an electrical voltage in the liquid.

This is picked up by two electrodes inserted in the measuring tube and further processed by the downstream electronics. The voltage level is proportional to the flow velocity.



Materials:

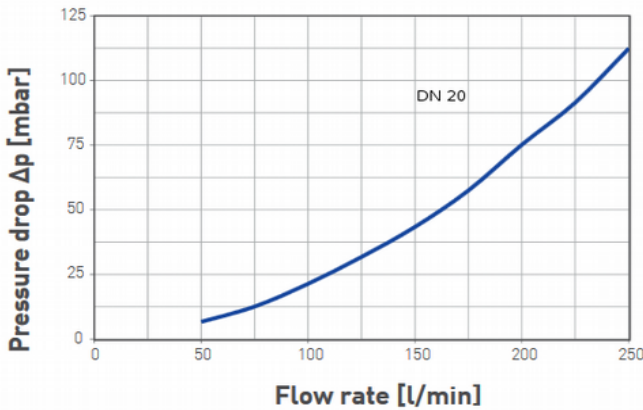
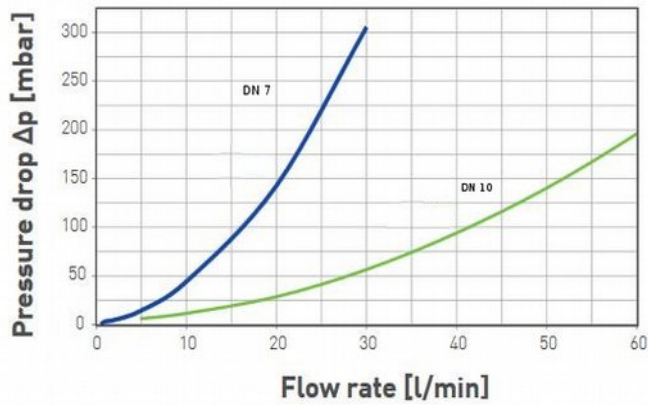
Measuring tube:	PEEK-GF30
Process connections:	stainless steel 1.4571
Electrodes:	stainless steel 1.4571
O-rings	EPDM / FKM (optional)
Housing:	Aluminum die casting

Technical Data:

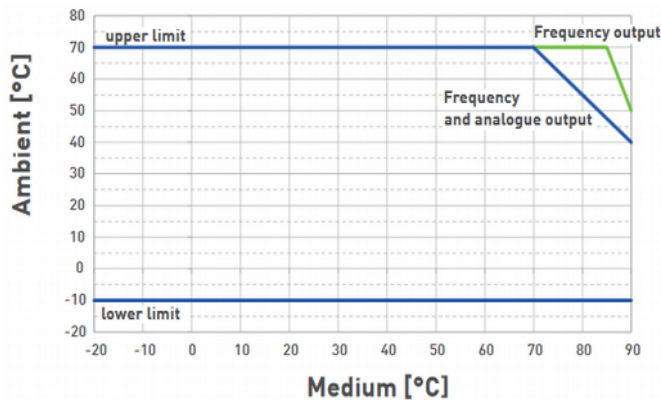
Characteristics	D = Ø 7 mm	D = Ø 10 mm	D = Ø 20 mm
Nominal sizes	DN 7	DN 10	DN 20
Process-connection	G ½ male	G ½ male or G ¾ male	G 1 male
Measuring range	0,5...30 l/min	1...60 l/min	5...250 l/min
Signal output	from approx. 0,4 l/min	from approx. 0,9 l/min	from approx. 4 l/min
Accuracy	+/- 1,5 % of measured value +/- 0,3 % of final value		
Repeatability	1 %		
Response time	<500 ms		
Conductivity of the medium	Min. 50 µS/cm		
T_{medium}	5...90 °C		
T_{environment}	5...70 °C		
Nominal pressure	PN 16		
Flow display	LED green, flashes proportional to flow rate		
Protection class	IP65		
Electrical Data			
EI. connection	round plug M12x1		
Supply voltage	24 VDC (+/-10 %)		
Power input	< 150 mA		
Frequency output			
Pulse rate:	1000 pulses/l (standard) factory configurable: 1...2000 pulses/l	500 pulses/l (standard) factory configurable: 1...1000 pulses/l	100 pulses/l (standard) factory configurable: 1...200 pulses/l
Disbanding:	1,0 ml/pulse (standard) factory configurable: 1000...0,5 ml/pulse	2,0 ml/pulse (standard) factory configurable: 1000...1 ml/pulse	10 ml/pulse (standard) factory configurable: 1000...5 ml/pulse
Signal form:	square-wave signal, duty cycle 50:50, Push-Pull scanning		
Signal current:	Max. 100 mA, current-limited		
Analogue output 4...20 mA:			
Corresponds to flow rate *	0...20 l/min or 0...30 l/min	0...40 l/min or 0...60 l/min	0...200 l/min or 0...250 l/min
Max. load:	250 Ω against GND		
Analogue output 0...10 V			
Corresponds to flow rate *	0...20 l/min or 0...30 l/min	0...40 l/min or 0...60 l/min	0...200 l/min or 0...250 l/min

* other ranges available on request

Typical Pressure Loss:



Temperature operating limits:



Order Code:

Order number: **DM04. 1. F. 0. 0. E. 1. 0**

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Connection / inner size:

- 1 = G 1/2 male / DN 07
- 2 = G 1/2 male / DN 10
- 3 = G 3/4 male / DN 10
- 4 = G 1 male / DN 20

Output signal:

- F = frequency
- A = frequency and analogue (4...20 mA)
- V = frequency and analogue (0...10 V)

Measuring range

DM04.1 and DM04.2 (G ½ male):

- 1 = 0...20 l/min (DN 07 only)
- 2 = 0...30 l/min (DN 07 only)
- 3 = 0...40 l/min (DN 10 only)
- 4 = 0...60 l/min (DN 10 only)

DM04.3 only (G ¾ male):

- 5 = 0...40 l/min
- 6 = 0...60 l/min

DM04.4 only (G 1 male):

- 7 = 0...200 l/min
- 8 = 0...250 l/min

Mounting straps:

- 0 = without
- 1 = with

Material O-ring:

- E = EPDM (standard)
- F = FKM

Electrical connection:

- 1 = connector M12x1, 4-wire

Options:

- 0 = without
- 1 = please specify in plain text

Accessory Connector with Cable:

Order number: **SM12. 4. 2. G. 0**

M12-plug with PVC cable

Number of poles:

- 4 = 4-pole

Cable length:

- 0 = without cable for self assembly
- 2 = 2 m PVC-cable (standard)
- 5 = 5 m PVC-cable
- 10 = 10 m PVC-cable

Type:

- G = straight
- W = angled

Options:

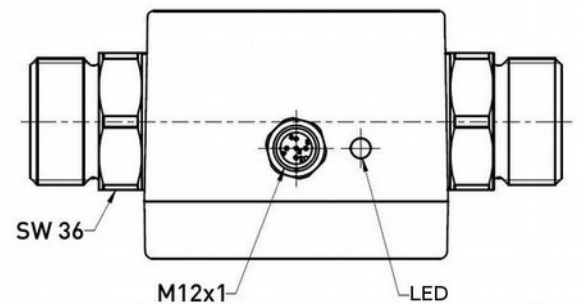
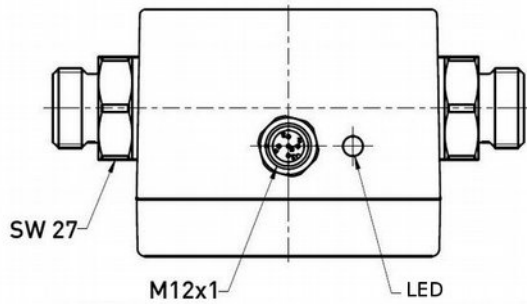
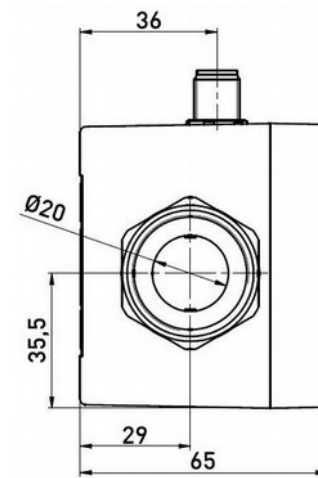
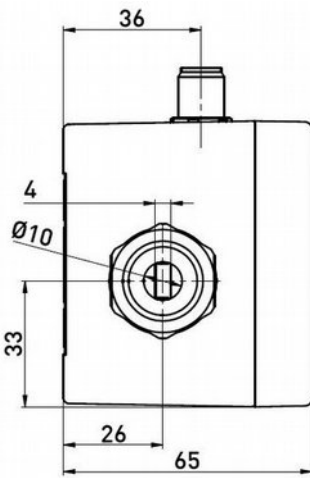
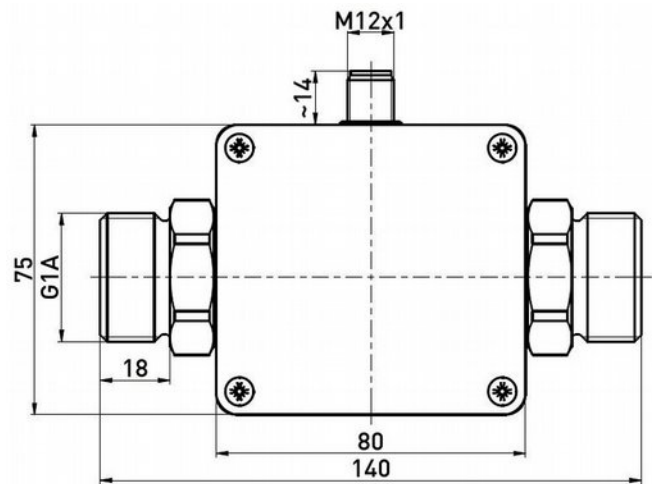
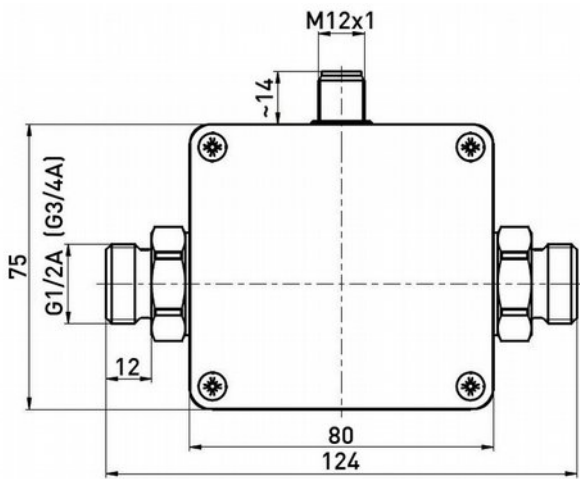
- 0 = without
- 9 = please specify in plain text



Dimensions:

DN 7, DN 10:

DN 20:



Flow

