

**Product Information**

**Sensors and Instrumentation**

**Flow Transmitter  
 MID1**



- For all electrically conductive fluids
- Fixed frequency output range as signal
- No moving parts in the area of flow
- High medium overload safety
- Low pressure loss
- Compact design

**Characteristics**

The MID1 system consists of a number of sensors which measure the flow speed of a flowing fluid according to the principle of Faraday's law of induction. For this, the fluid must have a minimum electrical conductivity of 50 µS/cm. Three nominal widths are available. The sensors are available with different evaluation electronics, which vary in type and number of outputs, and in operating convenience. This transmitter has a non-programmable frequency output (400 Hz at full scale value).

**Technical data**

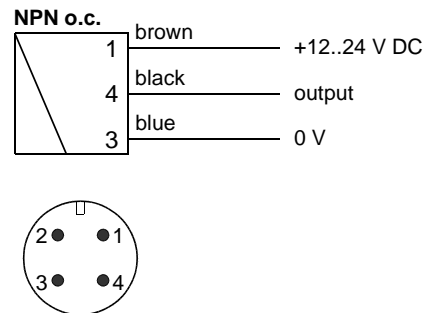
<b>Sensor</b>	magnetic-inductive	
<b>Nominal width</b>	DN 8..25	
<b>Process connection</b>	male thread R 1/4", R 1/2", R 1"	
<b>Metering ranges</b>	0.05..60 l/min	for details, see table "Ranges"
<b>Measurement accuracy</b>	0.05..1.5 l/min	
<b>Repeatability</b>	1 %	
<b>Minimum electrical conductivity (medium)</b>	50 µS/cm	
<b>Pressure resistance</b>	PN 10 bar	
<b>Pressure loss</b>	max. 0.3 bar at max. flow	
<b>Medium temperature</b>	0..60 °C (avoid frost and dew)	
<b>Ambient temperature</b>	0..60 °C	
<b>Storage temperature</b>	-20..+80 °C	
<b>Materials medium-contact</b>	stainless steel 1.4404, PPS, FKM	
<b>Supply voltage</b>	12..24 V DC	

<b>Current consumption</b>	approx. 100 mA	
<b>Signal output</b>	NPN o.c., 400 Hz at full scale value	
<b>Electrical connection</b>	for round plug connector M12x1, 4-pole	
<b>Ingress protection</b>	IP 64	
<b>Weight</b>	R 1/4"	approx. 0.2 kg
	R 1/2"	approx. 0.2 kg
	R 1"	approx. 0.3 kg
<b>Conformity</b>	CE	

**Ranges**

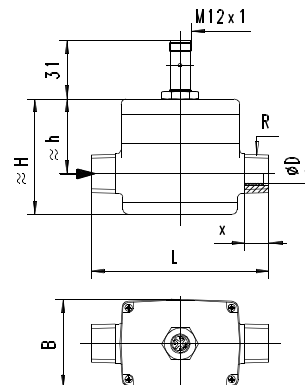
R	Nominal width	Metering range l/min H2O	Measurement accuracy
R 1/4"	DN 8	0.05.. 1	2.5 % of the measured value, at least 0.005 l/min
R 1/2"	DN 15	0.50..10	2.5 % of the measured value, at least 0.05 l/min
R 1"	DN 25	3.00..60	2.5 % of the measured value, at least 0.3 l/min

**Wiring**



Before the electrical installation, it must be ensured that the supply voltage corresponds with the data sheet. It is recommended to use shielded wiring.

**Dimensions**



R	Types	L mm	H mm	h mm	x mm	B mm	D mm
R 1/4"	MID1-008	85	59	39	9	47	5
R 1/2"	MID1-015	95	63	42	13	47	10
R 1"	MID1-025	110	72	45	16	49	20

**Product Information**

**Sensors and Instrumentation**

**Handling and Operation**

**Installation**

The device is screwed into the pipework by means of two male threads or into suitable connection pieces. Here, attention must be paid to the direction (arrow marked on the housing in the direction of flow). Seal using Teflon tape or a fluid seal.

Use the following torques:

R 1/4 ":	3 ±0.5 Nm
R 1/2 "	5 ±0.5 Nm
R 1	12 ±1.0 Nm

The sensor can be operated in any location. However, air bubbles should be avoided. Direction of flow from bottom to top is recommended.

The electronics head is supplied mounted on the sensor body.

Avoid angular loading of the sensor. Pipework in which sensors are installed should be permanently flooded. 10 x D should be used in the inlet and outlet.

**Programming**

The setting of this transmitter has been fixed in the factory. Changes of parameters must be requested from HONSBERG.

**Ordering code**

MID1-  1.  2.  3.  4.  5.  6.  7.

MID1-  **A** **P**  **M** **S**

○=Option

<b>1. Nominal width</b>	
008	DN 8 - R 1/4 "
015	DN 15 - R 1/2 "
025	DN 25 - R 1 "
<b>2. Process connection</b>	
A	male thread
<b>3. Housing material</b>	
P	PPS
<b>4. Metering range</b>	
001	0.05.. 1 l/min
010	0.50..10 l/min
060	3.00..60 l/min
<b>5. Signal output</b>	
M	frequency output NPN o.c.
<b>6. Electrical connection</b>	
S	for round plug connector M12x1, 4-pole
<b>7. Filter time</b>	
	Filter Accuracy
01	○ 0.1 s ± 4.2 %
03	○ 0.3 s ± 3.6 %
06	○ 0.6 s ± 3.1 %
10	○ 1.0 s ± 2.7 %
20	2.0 s ± 2.0 %
40	○ 4.0 s ± 0.5 %

**Options**

- Housing material PEEK

**Accessories**

- Cable/round plug connector (KB...) see additional information "Accessories"