



# Magnetic inductive flow sensors

## Series induQ® VMI

### Advantages

- Robust metal housing
- Nominal diameter DN 7, DN 10 and DN 20
- Wide measuring range 1:60 (1:50)
- Frequency or analogue and frequency output
- Delivery including works calibration certificate

### Type VMI20 / VMI10



### Free pipe cross-section

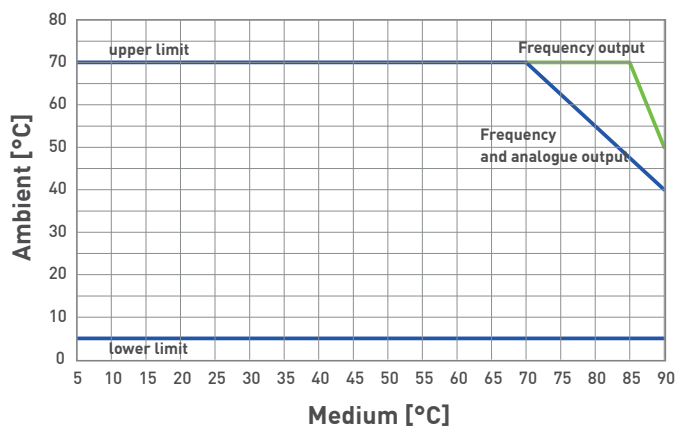


Werksprüfschein Works Calibration Certificate		SIKA® EDL/MS/2018	
Serie: Magnetisch induktiver Durchflussmesser			
Instrument: Magnetisch induktiver Flow Sensor			
Typ: VMI20/10/20/25	Modellname: S.S._20 class		
Material: Messing	Fluideigenschaften: Nicht leitend		
Serial No.: 8819075	Serial No.: 88112010		
Kalibrierungsmethode: Vergleichsmessung			
Kalibrierungsmethode: Comparative measurement			
Durchfluss		Impulsrate	
Flussrate	Flussrate	Messabweichung	
l/min	l/s	%	
0,01	0,01	±0,2	
4,01	0,01	±0,1	
4,01	0,01	±0,1	
0,01	0,01	±0,2	
0,01	0,01	±0,1	

Type	VMI07	VMI10	VMI20
<b>Characteristics</b>			
Nominal diameter	DN 7	DN 10	DN 20
Process connection	G½-ISO 228 male	G½-ISO 228 male or G¾-ISO 228	G 1-ISO 228 male
Flow range	0.5...30 l/min	1...60 l/min	5...250 l/min
Accuracy*	±1.5 % of reading ±0.3 % of range		
Repeatability*	1 %		
Response time	<500 ms		
Signal output starting from	Approx. 0.4 l/min	Approx. 0.9 l/min	Approx. 4 l/min
Medium / min. conductivity of medium	Water and other conductive liquids / 50 µS/cm		
Medium temperature	5...90 °C		
Ambient temperature	Min. 5 °C, max. see figure temperature limits		
Pressure rating	PN 16		
Flow indication	LED green, flow proportional flashing		
Degree of protection EN 60529	IP65 (with attached cable socket)		
<b>Electrical data</b>			
Electrical connection	Plug connector M12 x 1		
Power supply	24 VDC (±10 %)		
Current consumption	≤ 150 mA		

\* Test conditions: Water 23 °C at 200 ±100 µS/cm; standard pulse rate

### Temperature limits





Three different versions available:

- Frequency output
- Analogue output 4...20 mA and frequency output
- Analogue output 0...10 V and frequency output

Frequency output	VMI07	VMI10	VMI20
<b>Pulse rate</b> → <b>Optional*</b>	1000 pulses/l 1...2000 pulses/l	500 pulses/l 1...1000 pulses/l	100 pulses/l 1...200 pulses/l
<b>Resolution</b> → <b>Optional*</b>	1.0 ml/pulse 1000...0.5 ml/pulse	2.0 ml/pulse 1000...1 ml/pulse	5 ml/pulse 1000...5 ml/pulse
<b>Signal shape</b>	Square wave signal, pulse duty ratio 50:50, Push-Pull		
<b>Signal current</b>	≤ 100 mA, current limited		

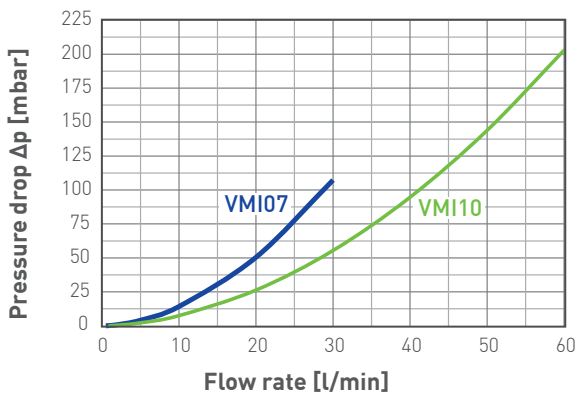
Analogue output 4...20 mA	VMI07	VMI10	VMI20
<b>Corresponds to flow rate**</b>	0..20 l/min or 0...30 l/min	0..40 l/min or 0...60 l/min	0...200 l/min or 0...250 l/min
<b>Max. burden</b>	250 Ω against GND		

Analogue output 0...10 V	VMI07	VMI10	VMI20
<b>Corresponds to flow rate**</b>	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

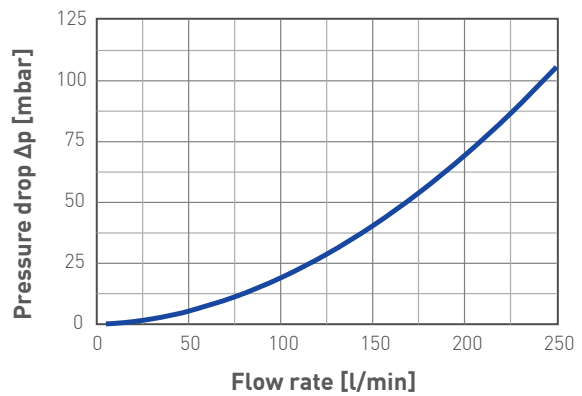
\* Factory configurable

\*\* Other ranges available on request

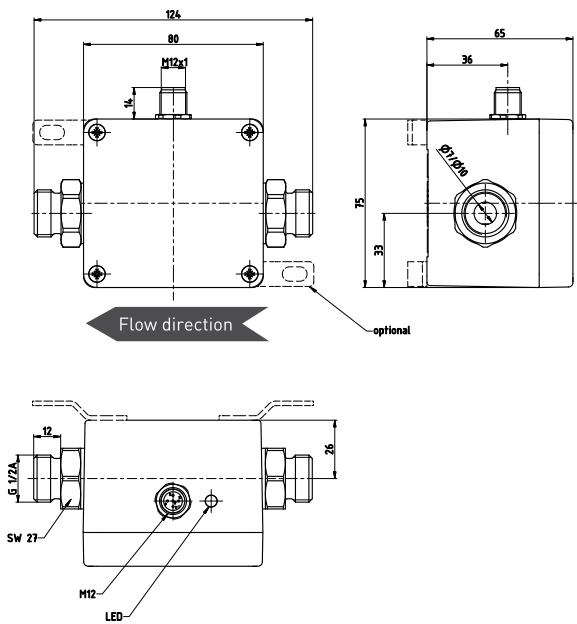
Typical pressure drop VMI07 / VMI10



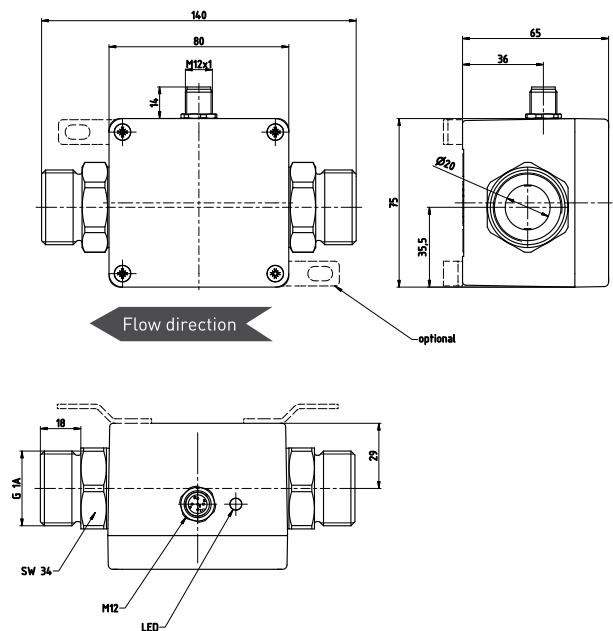
Typical pressure drop VMI20



VMI07 / VMI10



VMI20



**Materials**

<b>Electrodes</b>	Stainless steel 1.4571
<b>Process connections</b>	Stainless steel 1.4571
<b>Measuring pipe</b>	PEEK-GF30
<b>O-rings</b>	EPDM / FKM optional
<b>Housing</b>	Casted aluminium

Order code	Example → VMI	07A	SS	0	0YGX000
<b>Type</b>					
VMI	VMI				
<b>Nominal diameter / Process connection</b>					
<b>DN 07 / G½ male thread</b>					
<b>Output signals</b>		<b>corresponds to flow rate</b>			
Frequency signal		07A			0YGX000
Frequency signal and analogue signal 4...20 mA	0...20 l/min	07A			0YGI005
	0...30 l/min	07A			0YGI000
Frequency signal and analogue signal 0...10 V	0...20 l/min	07A			0YGU005
	0...30 l/min	07A			0YGU000
<b>DN 10 / G½ male thread</b>					
<b>Output signals</b>		<b>corresponds to flow rate</b>			
Frequency signal		10A			0YGX000
Frequency signal and analogue signal 4...20 mA	0...40 l/min	10A			0YGI005
	0...60 l/min	10A			0YGI000
Frequency signal and analogue signal 0...10 V	0...40 l/min	10A			0YGU005
	0...60 l/min	10A			0YGU000
<b>DN 10 / G¾ male thread</b>					
<b>Output signals</b>		<b>corresponds to flow rate</b>			
Frequency signal		10C			0YGX000
Frequency signal and analogue signal 4...20 mA	0...40 l/min	10C			0YGI005
	0...60 l/min	10C			0YGI000
Frequency signal and analogue signal 0...10 V	0...40 l/min	10C			0YGU005
	0...60 l/min	10C			0YGU000
<b>DN 20 / G1 male thread</b>					
<b>Output signals</b>		<b>corresponds to flow rate</b>			
Frequency signal		20A			0YGX000
Frequency signal and analogue signal 4...20 mA	0...200 l/min	20A			0YGI005
	0...250 l/min	20A			0YGI000
Frequency signal and analogue signal 0...10 V	0...200 l/min	20A			0YGU005
	0...250 l/min	20A			0YGU000
<b>Mounting straps</b>					
Without (standard)			SS		
With mounting straps			LS		
<b>Material O-rings</b>					
EPDM (Standard)				0	
FKM (Option)				1	

Accessories	Length	Order code	
<b>Connection cable with 4-pin cable socket M12 x 1, angle type moulded lead, sheathing material PUR, shielded, (<math>T_{max} = 80\text{ °C}</math>)</b> UL-approval	3 m	XVT2053	
	5 m	XVT2009	
	10 m	XVT2070	

