



Flow Meter PCE-VMI 20



PCE-VMI 20 Electromagnetic Flow Meter

Flow Meter to measure all electrically conductive liquids / without any moving part / without mechanical wear / no additional pressure drop

The PCE-VMI Electromagnetic Flow Meter can be used in the construction of machines and plants thanks to its compact design. The PCE-VMI Electromagnetic Flow Meter is used where flow meters with moving parts such as vane flow meters cannot be used due to the dirt. The PCE-VMI Electromagnetic Flow Meter is used for the continuous flow measurement or the dosage of electrically conductive liquids with a minimum conductivity of 50 µS/cm.

The PCE-VMI Electromagnetic Flow Meter operates according to the electromagnetic induction principle: The measurement tube is located on a magnetic field. If a conductive medium flows through the measurement tube perpendicular to the magnetic field, a strength proportional to the mean flow velocity is induced to the medium and it is captured by two electrodes. A frequency proportional to the flow is emitted as signal output.

- Without any moving parts
- No mechanical wear
- Free tubular section
- No additional pressure drop
- Resistant to dirty liquids
- Inspections are not required
- Quick response (<500 ms)
- Minimum requirements in the duct entry

Specifications:

Model

Measurement range

Accuracy

Sending a signal from

Repeatability

Liquid conductivity

Liquid temperature

Environmental temperature

Nominal pressure

Nominal diameter

Connection type

flow indication

Output signals

Pulse repetition

frequency

Resolution

VMI 20

10 ... 180 l/min

±2 % of the
measurement value

approx. 5 l/min

2 %

Water and other conductive liquids / 50 µS/cm
(lower conductivities affect to the measurement
accuracy)

max. 75 °C

5 ... 70 °C

PN 16

DN 20

G 1"-ISO 228 external

green LED, proportional to the flow

200 pulses/l

5 ml/pulse

Waveforms	NPN rectangular signal open collector, working cycle 50:50
Signal intensity	max. 20 mA, limited current
Maximum Pull-up voltage	30 VDC
Optional: 4 ... 20 mA analog output (with additional cost)	
General Specifications	
Response time	<500 ms
Electrical connection	M12x1 connector
Power supply	24 VDC $\pm 10\%$
Input current	maximum 80 mA
Counter measurements	over voltage resistant (up to 30 V) and protected against polarity reversal (up to -30 V)
Protection type	IP 65

Delivery Scope

1 x PCE-VMI 20 Electromagnetic Flow Meter
1 x user's manual