



HM 9 EP

Turbine Flow Meter for Small Flow Rates

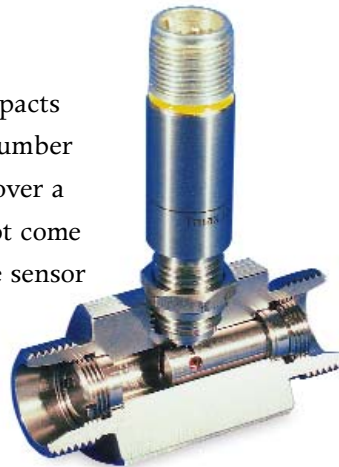
Application

Type EP turbine flow meters are used for the precise measurement of small flow rates of fluids. They are suitable for both measuring the actual flow rate and total flow. The turbine should be installed in a vertical position with outlet up.

Smoothing interval up- or downstream of the meter is not necessary, fittings with pipe reducers may be installed right at the meter. Also, pressure impact does not affect the performance of the EP meter. The simple mechanical structure guarantees for a long lifetime with constant accuracy.

Principle

The fluid passes through a nozzle and tangentially impacts and rotates the sailwheel inside the flow meter. The number of revolutions is in proportion with the volume flow over a wide range and is detected by a sensor which does not come into contact with the fluid. For further processing the sensor supplies a flow-proportional pulse signal.

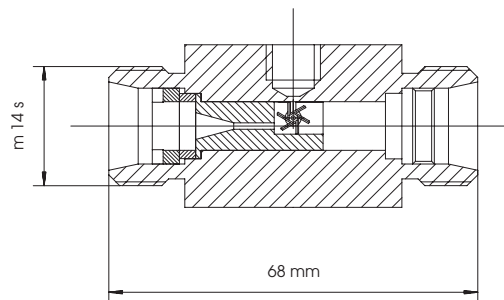


Advantages of the HM 9 EP

- A high number of pulses per volume unit provides high resolution
- Linear measuring range wider than 1:15 for viscosities up to 5 mm²/sec
- Response time of 3 to 5 msec thanks to the low mass of the sailwheel

Technical Data

measuring range:	0.03 up to 0.8 ltr./min
measuring media:	fluids without contamination
filters:	20 to 40 micron necessary
viscosity range:	up to approx. 15 mm ² /sec
linearity:	±2.5% of actual flow depending on viscosity variations
repeatability:	better than 0.5%
pulse rate:	approx. 139,000 pulses/litre, see diagram below
pressure drop:	depending on viscosity, see diagram below
operating temperature:	-20 up to +180°C for standard versions
operating pressure:	up to 640 bar with Ermeto connections
tube fittings:	Ermeto threads type m14s for tube 14 x 4 mm or flanges dia 15
overall length:	68 mm



materials:	stainless steel as per DIN 1.4305, 1.4122 (cf. AISI 303) on request 1.4571, 1.4460 (cf. AISI 316 Ti and 329) sapphire bearings
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