

Certified according to DIN EN ISO 9001

Technical Datasheet



HM...R

Turbine Flow Meters with Female Inch Threads

Description

Turbine flow meters provide accurate measurement of instantaneous or total flow rates of low-viscosity-fluids

Application:

- Tap and demineralised water
- Fuels
- Liquefied gases
- Pharmaceutical fluids
- Light fuel oil
- Solvents

Advantages

Fast response time and high resolution

The response time ranges from 5 up to 50 msec subject to turbine size. Thus rapidly increasing or varying flow rates may be detected. The resolution may amount to as much as approx. 139,000 pulses per litre (cf. »Technical Data«).

Wide temperature range from –276 up to +350 °C

Standard versions: –20 up to +120 °C

Versions with special bearings for cryogenic fluids: down to –276 °C

Versions with special pickups for heated fluids: up to +350 °C

Resistant to contamination with solids

Turbine wheel and bearings are designed in a way that solids are flushed through the turbine with the medium. Therefore the turbine does not get blocked.

Technical Data

Type	Measuring Range, ltr./min	K-Factor*, pulses/ltr.	Frequency*, in Hz
HM 9 RP	00.3 up to 0.8	139,000	1,900
HM 3/1.5 R	0.3 up to 1.5	32,000 32,500	1,000
HM 3/4 R	0.5 up to 4	24,000 19,500	1,250
HM 5/6 R	0.8 up to 6	17,800 17,800	1,740
HM 5/10 R	1.2 up to 10	11,000 11,000	1,750
HM 7 R	2.0 up to 20	5,200 5,200	1,800
HM 9 R	3.3 up to 33	1,900 4,200	1,080 2,200
HM 11 R	6.0 up to 60	1,300 2,730	1,350 2,700
HM 13 R	8.5 up to 85	900 1,900	1,300 2,600
HM 19 R	15 up to 150	310 650	925 2,000
HM 28 R	30 up to 360	155 320	960 2,000
HM 30 R	35 up to 400	130 270	860 1,800

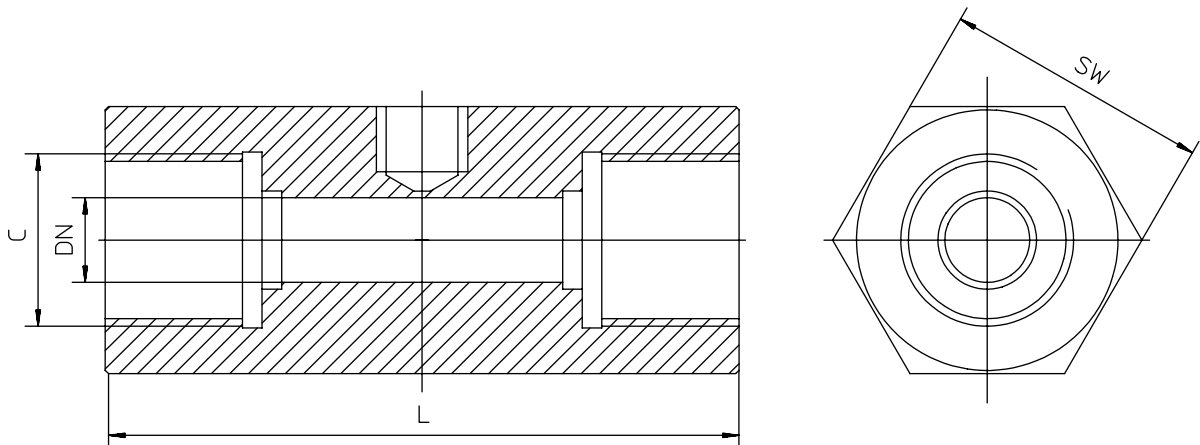
* For viscosities from 8 mm²/s onwards the wheel's axial pitch will be halved, thus K-factors will be higher. The specifications for K-factor and output signal are average values. Individual values are recorded during calibration.

Materials

Stainless steel as per DIN (AISI)

Component	Standard material	Special material
Housing	1.4305	1.4571 (316 Ti) or 1.4404 (316 L)
Internal parts	1.4305 (303)	1.4571 (316 Ti) or 1.4404 (316 L)
Wheel	1.4122 (303)	1.4460 (329)
Bearing	Tungsten carbide	Tungsten carbide or teflon

Dimensional Drawings (mm)



Typ	DN (dia)	L	C	SW	Pressure, bar
HM 3/1.5 R	4	60	G 1/4"	30	630
HM 3/4 R	4	60	G 1/4"	30	630
HM 5 R	5	70	G 3/8"	30	630
HM 7 R	7	74	G 3/8"	30	630
HM 9 R & RP	9	79	G 3/8"	30	630
HM 11 R	11	86	G 3/8"	30	400
HM 13 R	13	97	G 3/4"	41	400
HM 19 R	19	125	G 1"	46	400
HM 28 R	28	161	G 1 1/2"	60	315
HM 30 R	30	181	G1 1/2"	60	315

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