



Zertifiziertes
QM-System
DIN EN ISO 9001
Zertifikat-Nr. 01017

Variable Area Flowmeter/monitor

glass cone with threaded connection



measuring
•
monitoring
•
analysing

URM



- Measuring range:
Water: 0.25 ... 2.5 – 2 500 ... 25 000 l/h
Air: 0.0032 ... 0.032 – 32 ... 320 Nm³/h
- Accuracy: $\pm 2\%$ $q_G = 50\%$
(2,5% for gases)
- p_{\max} : 16 bar; t_{\max} : 100 °C (65 °C for PVC)
- Connection: G $\frac{3}{8}$... 3 male,
G $\frac{1}{4}$... 1 $\frac{1}{2}$ female
- Material: stainless steel 1.4301, 1.4404

S2



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Description

The KOBOLD URM model flowmeter/monitor works on the basis of the suspended float principle. It is used for measuring the flow rates in closed pipe line systems.

The medium flows from below through a glass measuring cone that gets wider on top. Thus, the float is raised and indicates the respective flow rate on the scale provided on the measuring cone. To monitor flow rate limits, the URM meters can be optionally furnished with "open collector" proximity switches. By its special design, this model is particularly suitable for applications where only very small operating pressures are available. Another advantage is offered by the very large sight glass which optically allows direct flow observation.

Applications

- Domestic engineering
- Cooling circuits
- Plant engineering
- Water treatment
- Heating
- Machine tools
- Solar systems
- Welding machines
- Paper machines
- Glass melting pots
- Extrusion machines
- Induction furnaces

Technical Details

Installation position: vertical
 Accuracy: $\pm 2\% q_G = 50\%$ (2.5% for gases)
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 Max. temperature: 100 °C (65 °C for PVC)
 Max. pressure: 01H...37H 16 bar
 43H...57H 12 bar
 63H...65H 8 bar
 01L...37L 16 bar
 43L...55L 10 bar
 63L...65L 6 bar
 Calibration conditions: water: 20 °C, air: 20 °C,
 air pressure: 1.013 bar abs.
Contact (optional)
 Proximity switch: PNP open collector, n. o. contact
 (monostable)
 Ambient temperature: -25...+70 °C
 Supply voltage: 12...24 V_{DC}
 Current consumption: max. 10 mA
 Cable: 2 m, PVC-insulated
 Protective category: IP67

Materials

Material combination URM

Ordering code	Connection	Float	Seal	Centring ring	Protection tube	Measuring tube
33	1.4301	1.4301	NBR	PVC	st. steel 1.4301	borosilicate glass
55	1.4404	1.4404	FPM	PTFE		
99*	1.4301 1.4404	1.4301 1.4404 aluminium PTFE PVC PP	NBR EPDM FPM PTFE	PVC PTFE 1.4301		

* Customer specification on request

Order Details (Example: URM- 33 01H I2 00)

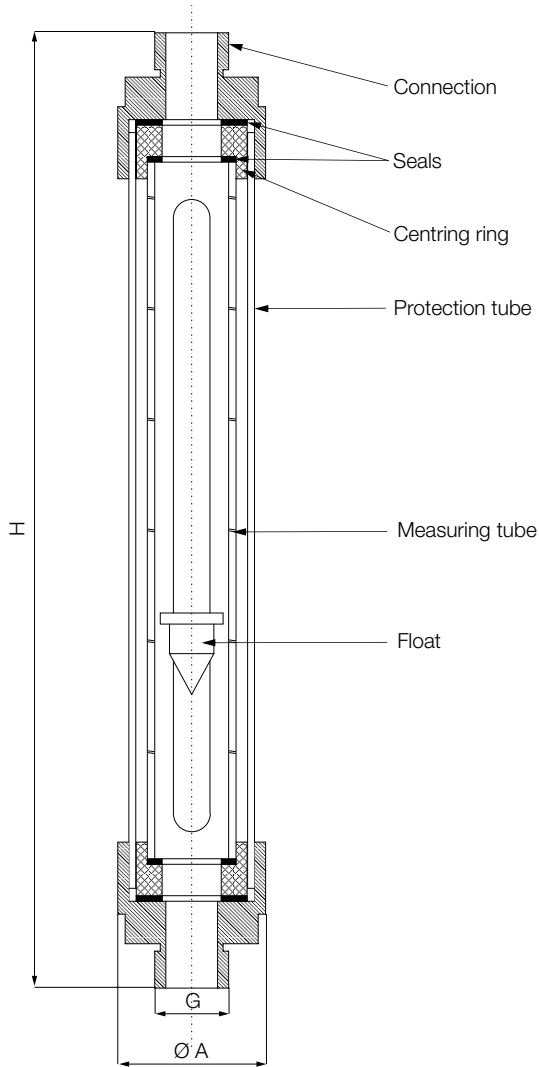
Model	Material combination	Instrument length	Measuring range		Pressure loss [mbar]	Thread connection ³⁾		Contacts ¹⁾
			water [l/h]	air [Nm ³ /h]		female	male	
URM-	33 55 99 ²⁾	210 mm	01H = 0.25...2.5	01L = 0.0032...0.032	6	I2 = G 1/4 I3 = G 3/8	G2 = G 1/4 G3 = G 3/8	00 = no contact
			03H = 0.4...4	03L = 0.008...0.08	6			
			05H = 0.63...6.3	05L = 0.02...0.2	8			
			07H = 1...10	07L = 0.032...0.32	10			
			09H = 1.6...16	09L = 0.05...0.5	10			
		360 mm		11L = 0.02...0.2	10	I2 = G 1/4 I3 = G 3/8	G2 = G 1/4 G3 = G 3/8 G4 = G 1/2	
			13H = 1...10	13L = 0.032...0.32	10			
			15H = 1.6...16	15L = 0.05...0.5	10			
			17H = 2.5...25	17L = 0.08...0.8	12			
			19H = 4.0...40	19L = 0.13...1.3	12			
		360 mm	22H = 6.3...63	22L = 0.2...2.0	17	I3 = G 3/8 I4 = G 1/2	G3 = G 3/8 G4 = G 1/2 G5 = G 3/4	00 = none 1A = 1x N/O, PNP 2A = 2x N/O, PNP
			24H = 10...100	24L = 0.32...3.2	24			
			26H = 16...160	26L = 0.5...5.0	28			
			28H = 25...250	28L = 0.8...8.0	25			
		360 mm	33H = 40...400	33L = 1.3...13	36	I4 = G 1/2 I5 = G 3/4	G4 = G 1/2 G5 = G 3/4 G6 = G 1	00 = none 1B = 1x N/O, PNP 2B = 2x N/O, PNP
			35H = 63...630	35L = 2.0...20	34			
			37H = 100...1000	37L = 3.2...32	43			
		440 mm	43H = 100...1000	43L = 3.2...32	43	I5 = G 3/4 I6 = G 1 I7 = G 1 1/4	G5 = G 3/4 G6 = G 1 G7 = G 1 1/4 G8 = G 1 1/2	
			45H = 160...1600	45L = 5.0...50	48			
			47H = 250...2500	47L = 8.0...80	51			
		440 mm	53H = 400...4000	53L = 13...130	51	I6 = G 1 I7 = G 1 1/4 I8 = G 1 1/2 I9 = G 2	G6 = G 1 G7 = G 1 1/4 G8 = G 1 1/2 G9 = G 2	
			55H = 630...6300	55L = 20...200	57			
			57H = 1000...10000		70			
		600 mm	63H = 1600...16000	63L = 32...320	93	I8 = G 1 1/2 I9 = G 2 IA = G 2 1/2 IB = G 3	G8 = G 1 1/2 G9 = G 2 GA = G 2 1/2 GB = G 3	00 = none 1C = 1x N/O, PNP 2C = 2x N/O, PNP
65H = 2500...25000			102					
		on request	YYY = others		on request			

¹⁾ Monostable switch. Other switching functions on request

²⁾ Customer specification on request

³⁾ For NPT-threads, please replace »Ix« with »Mx« and »Gx« with »Nx«.

Dimensions



URM with female/male thread (F = female / M = male)												
Model	H [mm]	A [mm]	¼"	⅜"	½"	¾"	1"	1 ¼"	1 ½"	2"	2 ½"	3"
URM-xx 0...	210	29,5	F/M	F/M	-	-	-	-	-	-	-	-
URM-xx 1...			F/M	F/M	-/M	-	-	-	-	-	-	-
URM-xx 2...	360	40,0	-	F/M	F/M	-/M	-	-	-	-	-	-
URM-xx 3...		49,5	-	-	F/M	F/M	-/M	-	-	-	-	-
URM-xx 4...	440	62,0	-	-	-	F/M	F/M	F/M	-/M	-	-	-
URM-xx 5...		82,0	-	-	-	-	F/M	F/M	F/M	F/M	-	-
URM-xx 6...	600	122,0	-	-	-	-	-	-	F/M	F/M	F/M	F/M