



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 – 50...500 m³_N/h
- Accuracy class: 4 according to VDI
- p_{max}: 20 bar; t_{max}: 100 °C (65 °C for PVC)
- Connection: G 3/8 – G 3 male,
G 1/4 – G 1 1/2 female
- Material: stainless steel 1.4301, 1.4404



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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

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.

Technical Details

Installation position: vertical
 Accuracy class: 4 according to VDI
 Max. temperature: 100 °C (65 °C for PVC)
 Max. pressure: 01H...37H 20 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
 Ambient temperature: -25...+70 °C
 Supply voltage: 12...24 V_{DC}
 Current consumption: max. 10 mA
 Cable: 2 m, PVC-insulated
 Protective category: IP 67

Materials

Material combination URM

Ordering code	Connection	Float	Seal	Ring	Housing	Measuring cone
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 0)

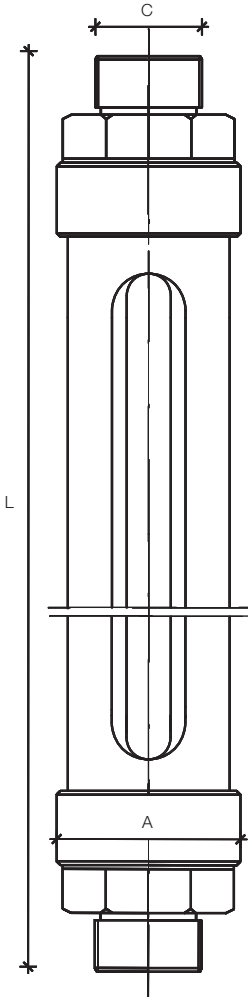
Model	Material combination	Instrument length	Measuring range		Pressure loss [mbar]	Thread connection female or male		Contacts
			water [L/h]	air [m ³ /h]				
URM-	33 55 99**	210 mm	01H = 0.25...2.5	01L = 0.0032...0.032	6	I2 = G ¼ female I3 = G ¾ female	G3 = G ¾ male G4 = G ½ male	0 = no contact
			03H = 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 ¼ female I3 = G ¾ female	G3 = G ¾ male G4 = G ½ male	
			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 ¾ female I4 = G ½ female	G3 = G ¾ male G4 = G ½ male G5 = G ¾ male	
			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 ½ female I5 = G ¾ female	G4 = G ½ male G5 = G ¾ male G6 = G 1 male	
			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 ¾ female I6 = G 1 female	G5 = G ¾ male G6 = G 1 male G7 = G 1 ¼ male G8 = G 1 ½ male	
			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 female I7 = G 1 ¼ female I8 = G 1 ½ female	G6 = G 1 male G7 = G 1 ¼ male G8 = G 1 ½ male G9 = G 2 male	
			55H = 630...6300	55L = 20...200	57			
			57H = 1000...10000		70			
		600 mm	63H = 1600...16000	63L = 32...320	93	-	G8 = G 1 ½ male G9 = G 2 male GA = G 2 ½ male GB = G 3 male	
65H = 2500...25000	65L = 50...500		102					
	on request	YYY = others			on request			

* Other switching functions on request ** Customer specification on request

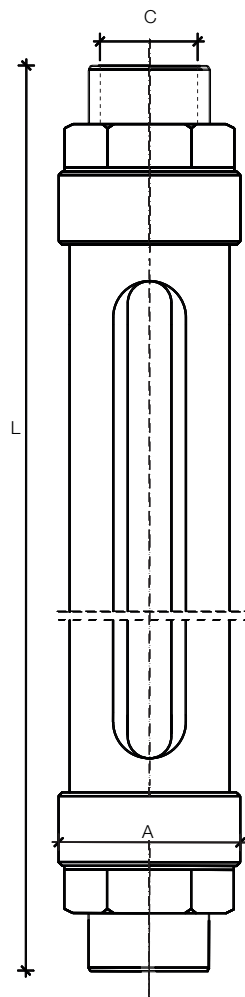


Dimensions

URM with male thread



URM with female thread



URM with male thread						
Model	L [mm]	A [mm]	C [mm]			
URM-xx 0	210	29.5	3/8"	1/2"	-	-
URM-xx 1			3/8"	1/2"	-	-
URM-xx 2	360	40.0	3/8"	1/2"	3/4"	-
URM-xx 3		49.0	1/2"	3/4"	1"	-
URM-xx 4	440	62.0	3/4"	1"	1 1/4"	1 1/2"
URM-xx 5		82.0	1"	1 1/4"	1 1/2"	2"
URM-xx 6	600	122.0	1 1/2"	2"	2 1/2"	3"

URM with female thread						
Model	L [mm]	A [mm]	C [mm]			
URM-xx 0	210	29.5	1/4"	3/8"	-	-
URM-xx 1			1/4"	3/8"	-	-
URM-xx 2	360	40.0	3/8"	1/2"	-	-
URM-xx 3		49.0	1/2"	3/4"	-	-
URM-xx 4	440	62.0	3/4"	1"	-	-
URM-xx 5		82.0	1"	1 1/4"	1 1/2"	-