

Variable Area Flowmeter/monitor

Glass cone with threaded connection



measuring monitoring analysing

URM



- Measuring range: Water: 0.25...2.5 - 2500...25000 l/h Air: 0.0032...0.032 - 32...320 m³_N/h
- Accuracy class: 4 according to VDI
- \bullet p_{max}: 16 bar; t_{max}: 100 °C (65 °C for PVC)
- Connection: G ¾ − G 3 male, G 1/4 - G 11/2 female
- Material: stainless steel 1.4301, 1.4404



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Variable Area Flowmeter/monitor Model URM





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 Data

Installation position: vertical

Accuracy class: 4 according to VDI

Max. temperature: 100 °C (65 °C for PVC)

Max. pressure: 01H...37H 16 bar
43H...57H 12 bar
63H...65H 8 bar

63H... 65H 8bar 01L... 37L 16bar 43L... 55L 10bar 63L... 65L 6bar

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)

 $\begin{array}{lll} \mbox{Ambient temperature:} & -25...+70\,^{\circ}\mbox{C} \\ \mbox{Supply voltage:} & 12...24\,\mbox{V}_{\rm DC} \\ \mbox{Current consumption:} & \mbox{max. 10 mA} \\ \end{array}$

Cable: 2 m, PVC-insulated

Protective category: IP67

Materials

Material combination URM

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

^{**} Customer specification on request

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Order Details (Example: URM- 33 01H I2 0)

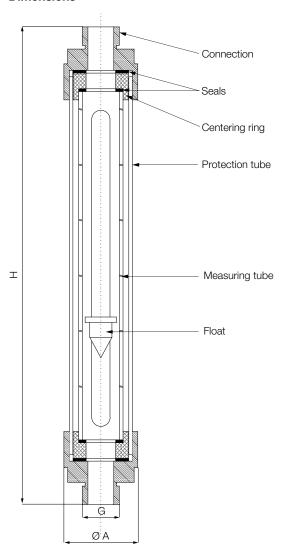
Model	Material	Instru-	Measuring range		Pressure	Thread connection		Contacts
	combi- nation	ment length	water [l/h]	air [m³ _N /h]	loss [mbar]	fema	le or male	
			01H = 0.252.5	01L = 0.00320.032	6			
	210 mm	03H = 0.44	03L = 0.0080.08	6	12 = G ½ female 13 = G 3/8	G3 = G % male G4 = G ½ male		
		05H = 0.636.3	05L = 0.020.2	8				
			07H = 110	07L = 0.0320.32	10	female	GT = G /2 maic	0 = no contact
			09H = 1.616	09L = 0.050.5	10			
				11L = 0.020.2	10	I2 = G ¼ female I3 = G 3% female	G3 = G % male G4 = G ½ male	
			13H = 110	13L = 0.0320.32	10			
		360 mm	15H = 1.616	15L = 0.050.5	10			
			17H = 2.525	17L = 0.080.8	12			
			19H = 4.040	19L = 0.131.3	12			
			22H = 6.363	22L = 0.22.0	17	female 14 = G ½ G5 = G 34 n		_
		360 mm	24H = 10100	24L = 0.323.2	24		G3 = G % male G4 = G ½ male G5 = G ¾ male	
			26H = 16160	26L = 0.55.0	28			
			28H = 25250	28L = 0.88.0	25	female		
	33	360 mm	33H = 40400	33L = 1.313	36	I4 = G ½	female G5 = G 3/4 male	
URM-	55 55		35H = 63630	35L = 2.020	34	temale 15 = G ¾		
	99**		37H = 1001000	37L = 3.232	43			
		440 mm	43H = 1001000	43L = 3.232	43	G5 = G ¾ male G6 = G 1 male G7 = G 1 ¼ male G8 = G 1 ½ male G8 = G 1 ½ male	0 = no	
			45H = 1601600	45L = 5.050	48			P* = 1 PNP normally open
			47H = 2502500	47L = 8.080	51		male G8 = G 1 ½	
			53H = 4004000	53L = 13130	51	16 = G 1 female	G6 = G 1 male G7 = G 1 ½	R* = 2 PNP normally open
		440 mm	55H = 6306300	55L = 20200	57	I7 = G 1 1/4 male female G8 = G 1 1/2		
			57H = 1 00010 000		70	18 = G 1 ½ male female G9 = G 2 ma	G9 = G 2 male	
		600 mm -	63H = 160016000	63L = 32320	93		G8 = G 1 ½ male G9 = G 2 male	
			65H = 250025000		102	GA = G 2 ½ male GB = G 3 male		
		on request	YYY = others			(on request	

 $^{^{\}star}$ Monostable switch. Other switching functions on request ** Customer specification on request

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Dimensions



URM with male thread							
Model	Н	Α	G				
	[mm]	[mm]					
URM-xx 0	210	29.5	3/8"	1/2"	-	_	
URM-xx 1	360	29.5	3/8"	1/2"	-	-	
URM-xx 2		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 ½"	
URM-xx 5	440	82.0	1"	1 1/4"	1 ½"	2"	
URM-xx 6	600	122.0	1 ½"	2"	2½"	3"	

URM with female thread								
Model	Н	Α	G					
	[mm]	[mm]						
URM-xx 0	210	29.5	1/4"	3/8"	-	_		
URM-xx 1		29.5	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 ½"	-		