



Manifold Valves for Multiple Installation for Liquids



measuring
•
monitoring
•
analysing

USR



- Measuring range:
water 0.04 - 0.4 ... 1 - 10 l/min
- Accuracy class:
2.5 acc. to VDI/VDE
- p_{max} : 16 bar; t_{max} : 100 °C
- Connection:
inlet:
G 1 (1" NPT with adapter)
outlet:
G 1/4, G 3/8, 1/4" NPT, 3/8" NPT,
hose connection:
Ø10, Ø13, Ø15 mm
- Material: nickel plated brass

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Description

The flowmeters model USR for liquids operate on the variable area flowmeters principle, which means that the installation position is vertical and the direction of flow is from bottom to top. The instruments have been designed as simple and thus economical measuring systems. The float for USR is a bomb form float, whereby the indication point is the top of the float. The appliance is available with valve. For centralised flow measurement, for example in cooling systems, we recommend the manifold flowmeters for multiple installation. Up to 24 flowmeters can be assembled in a block provided that maximum flow rate in each unit does not exceed 10 l/min. The ranges and outlet connections of each unit in such a block can be determined separately.

Applications

- Cooling circuits
- Pumps

Order Details (Example: **USR-2 S 06H L G I2 N 0**)

Model	Unit No.	Size	Ranges water [l/min]	Flow direction ¹⁾	Connection		Gasket	Option
					Inlet	Outlet ²⁾		
USR-	2 = 2-fold 3 = 3-fold 4 = 4-fold M ³⁾ = multi-fold	S = short	06H = 0.04-0.4 08H = 0.063-0.63 10H = 0.10-1.0 12H = 0.16-1.6 14H = 0.25-2.5 16H = 0.4-4.0 00H ⁴⁾ = mixed	L = from left R = from right	G = G 1 N = 1"NPT	I2 = G ¼ N2 = ¼" NPT H3 = hose 10 mm H4 = hose 13 mm XX ⁵⁾ = mixed	N= NBR E= EPDM F= FPM	0= without 1= with wall brackets Y= special specify in text
			14H = 0.25-2.5 16H = 0.4-4.0 18H = 0.63-6.3 20H = 1-10 00H ⁴⁾ = mixed			I3 = G ⅜ N3 = ⅜" NPT H4 = hose 13 mm H5 = hose 15 mm XX ⁵⁾ = mixed		

¹⁾ In case of flow direction »L«, the inlet connection is female, in case of flow direction »R«, the inlet connection is male

²⁾ All outlet threads are female

³⁾ Please specify the unit number up to 24 units in clear text, while ordering. The device will be assembled from 2, 3 and 4-fold units

⁴⁾ Please specify the different ranges within one block in clear text, while ordering

⁵⁾ Please specify the different outlet connections within one block in clear text, while ordering

Technical Details

Installation position:

- inlet: horizontal
- outlet: vertical from bottom to top

Flow direction: from left to right or right to left

Accuracy class: Class 2.5 acc. to VDI/VDE 3513

Max. pressure: 16 bar

Process temperature: 0...+100 °C

Ambient temperature: 0...+60 °C

Protective category: IP 65

Connections:

- inlet: G 1 or (1" NPT with adapter)
- outlet: G ¼, G ⅜, ¼" NPT, ⅜" NPT (female)
- hose connection: Ø10, Ø13, Ø15 mm

Material

Wetted parts:

Measuring tube: borosilicate glass

Float stop: PTFE

Float: stainless steel

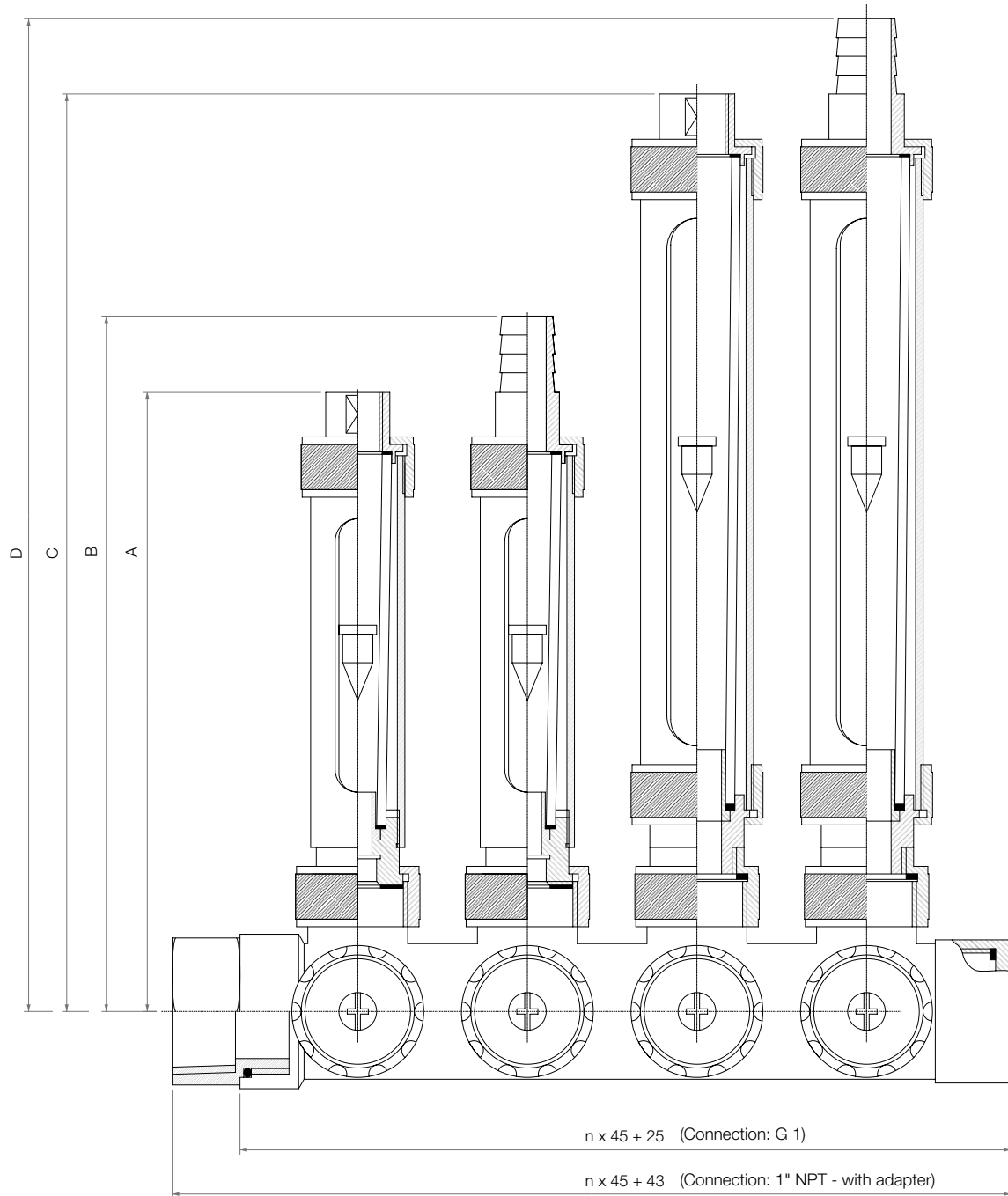
Gasket: FPM, EPDM, NBR

Block, fitting, valve: nickel plated brass

Non wetted part:

Protection tube: aluminium

Dimensions [mm]



Size S		Size L	
A	B	C	D
170 mm	190 mm	250 mm	270 mm