

Variable Area Flowmeters Assembled with Manifold Valves for Liquids



measuring
•
monitoring
•
analyzing

USR



- Measuring Range: 0.01...0.1 to 0.25...2.5 GPM (Water)
- Accuracy Class: 2.5 acc. to VDI/VDE 3513
- p_{max} : 230 PSI; t_{max} : 210 °F
- Connection Inlet: 1" NPT via Adapter
- Connection Outlet: 1/4" NPT, 3/8" NPT
Hose Connection: Ø10, Ø13, Ø15 mm
- Material: Nickel Plated Brass



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Description

USR variable area flowmeters are designed for liquids and are available pre-assembled with manifold valves. They are for vertical installations where the direction of flow is from the bottom to the top. They are a simple and economical measuring system. The float for the USR is a bomb form float, and the indication point is the top of the float. For centralized flow measurement, found in applications like 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 2.64 GPM. The ranges and outlet connections of each individual flowmeter unit can be determined independently from the others.



Applications

- Cooling Circuits
- Pumps

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: 230 PSI

Process Temperature: 32...212°F

Ambient Temperature: 32...140°F

Protective Category: IP 65

Connections

Inlet: 1" NPT via Adapter
Outlet: 1/4" NPT, 3/8" NPT, (Female)
 Hose Conn: Ø10, Ø13, Ø15 mm

Materials

Wetted Parts

Measuring Tube: Borosilicate Glass
Float Stop: PTFE
Float: Stainless Steel
Gasket: FKM, EPDM, or NBR
Block, Fitting, Valve: Nickel Plated Brass

Non Wetted Part

Protection Tube: Aluminum

Order Details (Example: USR-2 S 06G LN N2 F 0)

Model	Number of Units	Size	Water Ranges (GPM)	Connection Inlet/Flow Direction ¹⁾	Outlet Connection ²⁾	Gasket/O-ring	Option
USR-	..2.. = 2-fold ..3.. = 3-fold ..4.. = 4-fold ..M ³⁾ .. = Multi-fold	..S.. = Short	..06G.. = 0.01...0.1 ..08G.. = 0.016...0.16 ..10G.. = 0.025...0.25 ..12G.. = 0.04...0.4 ..14G.. = 0.063...0.63 ..16G.. = 0.1...1.0 ..00G ⁴⁾ .. = Mixed	..LN.. = 1" NPT female from Left	..N2.. 1/4" NPT ..H3.. = Hose 10 mm ..H4.. = Hose 13 mm ..YY ⁵⁾ .. = Mixed	..F.. = FKM	..0= without
		..L.. = Long	..14G.. = 0.063...0.63 ..16G.. = 0.1...1.0 ..18G.. = 0.16...1.6 ..20G.. = 0.25...2.5 ..00G ⁴⁾ .. = Mixed	..RN.. = 1" NPT male from Right	..N2.. 1/4" NPT ..N3.. = 3/8" NPT ..H4.. = Hose 13 mm ..H5.. = Hose 15 mm ..YY ⁵⁾ .. = Mixed	..E.. = EPDM ..N.. = NBR	..1= with Wall Brackets

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

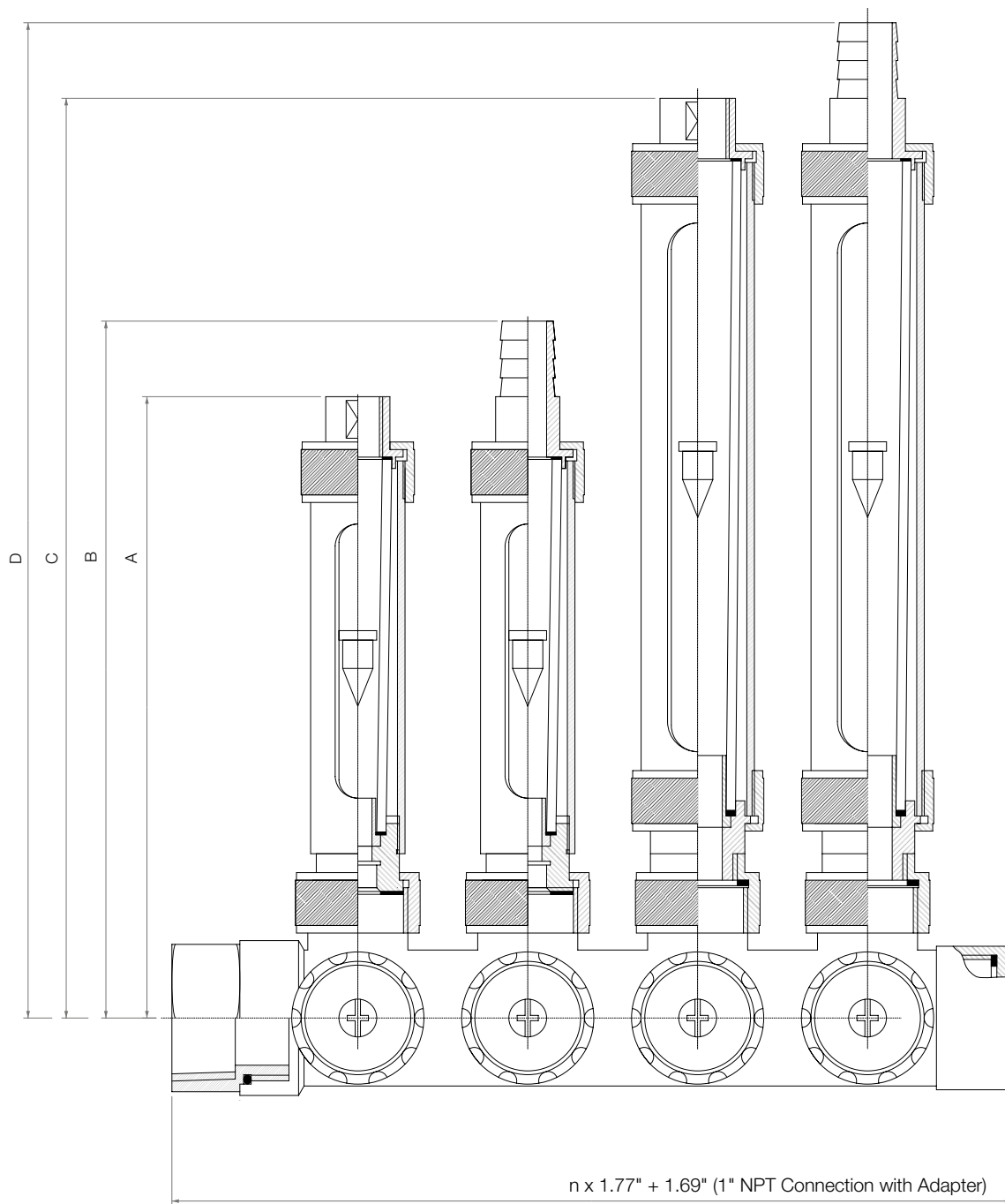
²⁾ All outlet threads are female

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

Dimensions



Size S		Size L	
A	B	C	D
6.69" (170 mm)	7.48" (190 mm)	9.84" (250 mm)	10.63" (270 mm)