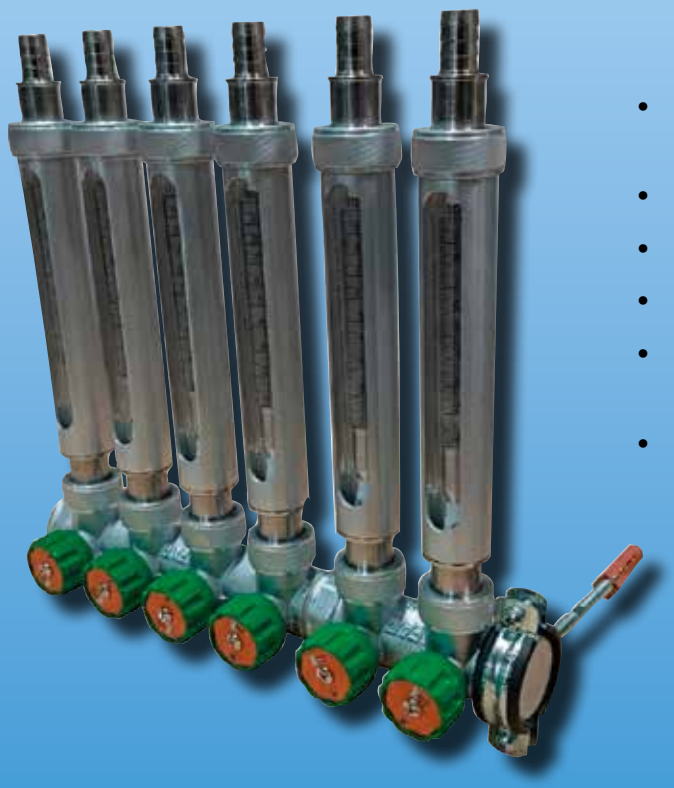
Variable Area Flowmeters
Assembled with Manifold Valves
for Liquids

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}: 232 PSI; t_{max}: 212 °F
- Connection Inlet: 1" NPT via Adapter
- Connection Outlet: ¼" NPT, ⅜" NPT
  Hose Connection: Ø9, Ø12, Ø15 mm
- Material: Nickel-plated Brass

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Variable Area Flowmeters Assembled with Manifold Valves Model USR

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 USR uses a conical float with the indication point at the top. For centralized flow measurement, found in applications like cooling systems, the multi-unit block valve assesmbly is highly practical. 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 independantly adjusted 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:	232 PSI
Process Temperature:	32...212 °F
Ambient Temperature:	32...140 °F
Protective Category:	IP 65

Connections

Inlet:	1" NPT via Adapter
Outlet:	¼" NPT, ⅜" NPT, (Female) Hose Conn: Ø9, Ø12, Ø15 mm
Wall Mounting Clamps:	2x Rubber Lined Clamps, with M8 Clamping Screws and Dowels (Universal, dia.: 12 mm, L= 53 mm)/ Block

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

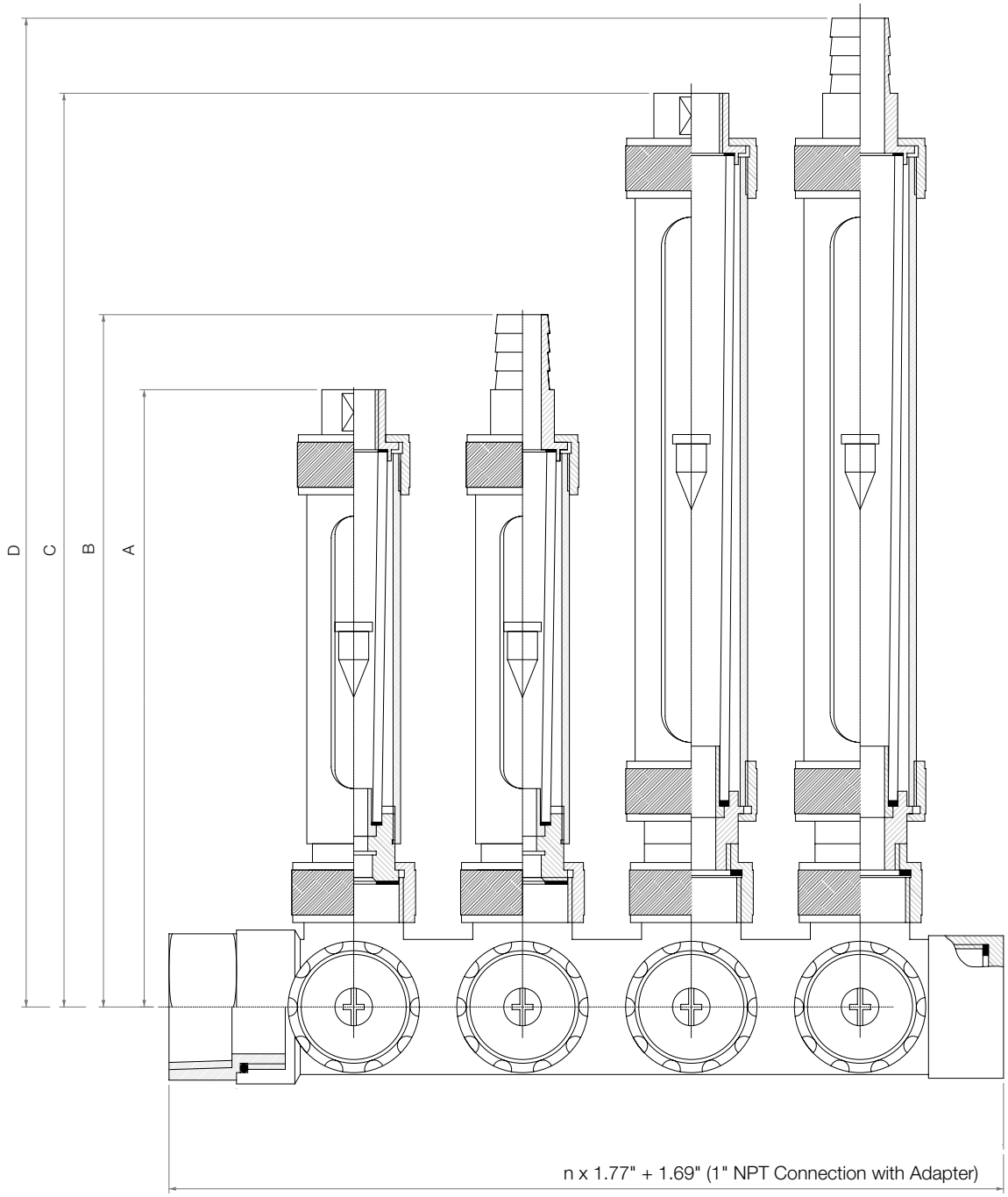
Order Details (Example: **USR-2 S 06G LN N2 F 0**)

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 **..RN..** = 1" NPT male from Right	**..N2..** ¼" NPT **..H3..** = Hose 9 mm **..H4..** = Hose 12 mm **..YY**[5].. = Mixed	**..F..** = FKM **..E..** = EPDM **..N..** = NBR	**..0**= without **..2**= with Wall-Mounting Clamps
		..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		**..N3..** = ⅜" NPT **..H4..** = Hose 12 mm **..H5..** = Hose 15 mm **..YY**[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

No responsibility taken for errors; subject to change without prior notice.

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)

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