## 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<sub>max</sub>: 230 PSI; t<sub>max</sub>: 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



Order from: C A Briggs Company

622 Mary Street; Suite 101; Warminster, PA 18974 Phone: 267-673-8117 - Fax: 267-673-8118 Sales@cabriggs.com - www.cabriggs.com KOBOLD Instruments, Inc. 1801 Parkway View Drive Pittsburgh, PA 15205

# OBOLD

#### 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 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 independantly 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 PSIProcess Temperature:32...212 °FAmbient Temperature:32...140 °FProtective Category:IP 65

Connections

Inlet: 1" NPT via Adapter

Outlet: 1" NPT, %" 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<br>(GPM)  | Connection Inlet/Flow Direction <sup>1)</sup>             | Outlet Connection <sup>2)</sup>  | Gasket/<br>O-ring      | Option                          |
|-------|---|---------------------|--|---|--|------------------------|---------------------------------|
| USR-  | 2 = 2-fold3 = 3-fold4 = 4-foldM <sup>3</sup> = Multi-fold | <b>S.</b> . = Short | 06G = 0.010.1<br>08G = 0.0160.16<br>10G = 0.0250.25<br>12G = 0.040.4<br>14G = 0.0630.63<br>16G = 0.11.0<br>00G <sup>4</sup> ) = Mixed<br>14G = 0.0630.63<br>16G = 0.11.0<br>18G = 0.161.6<br>20G = 0.252.5<br>00G <sup>4</sup> ) = Mixed | LN = 1" NPT female from Left RN = f1" NPT male from Right | N2 1/4" NPTH3 = Hose 10 mmH4 = Hose 13 mmYY <sup>5</sup> = Mixed N2 1/4" NPTN3 = 3/6" NPTH4 = Hose 13 mmH5 = Hose 15 mmYY <sup>5</sup> = Mixed | F = FKME = EPDMN = NBR | 0= without1= with Wall Brackets |

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

<sup>2)</sup> All outlet threads are female

<sup>&</sup>lt;sup>3)</sup> 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

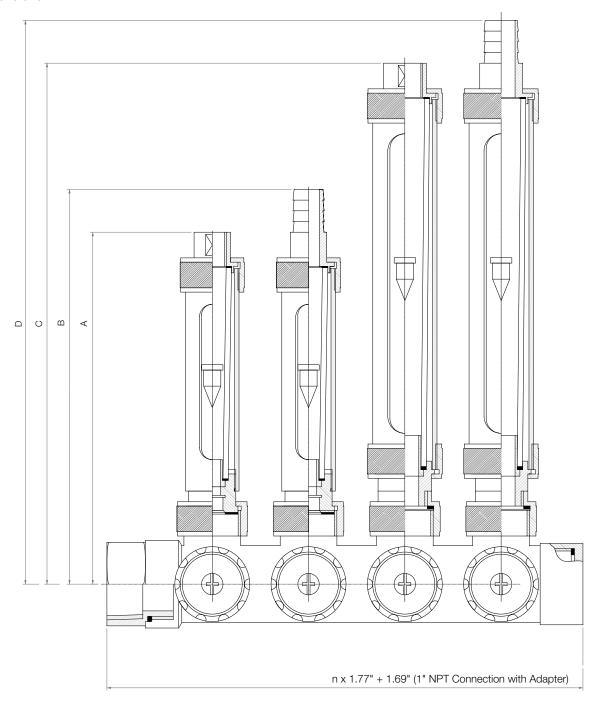
<sup>&</sup>lt;sup>4)</sup> Please specify the different ranges within one block in clear text, while ordering

<sup>&</sup>lt;sup>5)</sup> Please specify the different outlet connections within one block in clear text, while ordering

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#### **Dimensions**



| Siz            | e S            | Size L         |                 |  |
|----------------|----------------|----------------|-----------------|--|
| А              | В              | С              | D               |  |
| 6.69" (170 mm) | 7.48" (190 mm) | 9.84" (250 mm) | 10.63" (270 mm) |  |