

GESTRA Steam Systems

Product Range Group A2

MB 14



Non-Return Valves
MB 14
PN 16, DN ½" – 2"

Description

Non-return valve with screwed end connection; valve design with spring for installation in any position. Metal-to-metal seat. Application for liquids, gases and vapours (observe PED classification).

Pressure/Temperature Rating

| Nominal sizes | DN | 1/2" – 2" | | | | |
|-----------------------|--------------------|-----------------|------------|------------|--|--|
| Nominal pressure | PN | 16 | | | | |
| Max. service pressure | [bar g] [psi g] | 16 230 | 14 200 | 13 185 | | |
| Related temperature | [°C] [°F] | 120 248 | 200 392 | 250 482 | | |
| Min. temperature*) | | −60 °C (−76 °F) | | | | |

^{*)} Minimum temperature for nominal pressure rating

Connections

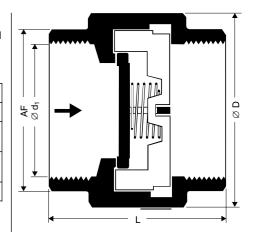
screwed BSP 1/2" - 2" (to DIN/ISO 228)

Dimensions

| Nominal sizes | DN | | 1/2" | 3/4" | 1" | 1¼" | 1½" | 2" |
|---------------|----------------|------|-------|-------|-------|-------|-------|------|
| Dimensions - | L | [mm] | 49 | 49 | 61 | 61 | 72 | 72 |
| | D | [mm] | 42 | 42 | 62 | 62 | 83 | 83 |
| | d ₁ | | 1/2" | 3/4" | 1" | 11/4" | 1½" | 2" |
| | AF | [mm] | 30 | 30 | 46 | 46 | 65 | 65 |
| Weight | | [kg] | 0.230 | 0.181 | 0.648 | 0.490 | 1.244 | 0.94 |

Materials

| DN ½" – 2" | DIN | ASTM equivalent | |
|------------|-------------------|--------------------|----------------|
| Body | Cu Zn 38 Pb 2 | CW 614 N | B 455 |
| Valve disc | X6CrNiMoTi17-12-2 | 1.4571 | A 182 F 316 |
| Spring | A00114114117-12-2 | 1.4371 | A 313 type 316 |
| Retainer | X5CrNi18-10 | 1.4301 | A 182 F 304 |



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Opening Pressures

Differential pressures at zero volume flow approx. $15-20\ \text{m}\,\text{bar}.$

Pressure Drop Chart

The curves given in the chart are valid for water at $20\,^{\circ}$ C. To read the pressure drop or other fluids the equivalent water volume flowrate must be calculated and used in the graph.

The values indicated in the chart are applicable to springloaded valves with horizontal flow. With vertical flow insignificant deviations occur only within the range of partial opening.

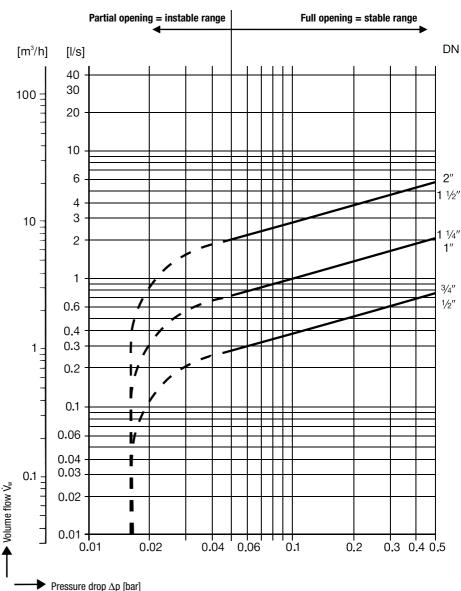
$$\dot{V}_{w} = \dot{V} \cdot \sqrt{\frac{\rho}{1000}}$$

 \dot{V}_w = Equivalent water volume flow in [l/s] or [m³/h]

 $\rho \quad = \quad \text{Density of fluid (operating condition)} \\ \quad \quad \text{in [kg/m³]}$

 \dot{V} = Volume of fluid (operating condition) in [l/s] or [m³/h]

When selecting valve please consider:



Order Specifications

Type MB 14. DN . . .

Material, fluid, flowrate, pressure and temperature.

Note:

The valves should not be used on compressors or where pulsating flow exists.

For these applications please consult us.



These products comply with the requirements of the EC Pressure Equipment Directive (PED) 97/23/EC. DN $\frac{1}{2}$ " – 2" are excluded from the scope of this Directive and **not entitled** to bear the CE marking.

Classification: fluid group 2 (non-hazardous substance).

Supply in accordance with our general terms of business.



Master Distributor in China & Taiwan

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