## Check valves type 020275 ADR-10 with calibrated orifice

in-line mounting - G 3/8" threaded ports


020275 ADR are direct operated check valves for in-line mounting with calibrated orifice realized in the valve poppet. This special execution is a simple solution to obtain a free flow (fast speed) in one direction $(A \rightarrow B)$ and a controlled flow in the opposit direction $(B \rightarrow A)$. The controlled flow is depending to the selected orifice diameter (see sect. 5) Available with port size G $3 / 8$ ".

## Applications:

Typical applications in mobile machines for the boom speed control.

Max flow up to $80 \mathrm{I} / \mathrm{min}$.
Pressure up to 400 bar.
Calibrated orifice from 0,8 to $2,5 \mathrm{~mm}$.


2 HYDRAULIC CHARACTERISTICS

| Hydraulic symbol |  | $A$ |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Orifice code |  | 08 | 09 | 10 | 12 | 125 | 15 | 17 | 20 | 22 |  |  |
| Orifice diameter | [mm] | 0,8 | 0,9 | 1,0 | 1,2 | 1,25 | 1,5 | 1,7 | 2,0 | 2,2 |  |  |
| Ring diameter | [mm] | 1,5 2,5 |  |  | 2,5 |  |  |  |  |  | 2,5 |  |
| Max recommended flow | [ $1 / \mathrm{min}$ ] | 80 |  |  |  |  |  |  |  |  |  |  |
| Max pressure | [bar] | 400 |  |  |  |  |  |  |  |  |  |  |

3 MAIN CHARACTERISTICS

| Assembly position / location | Any position |
| :--- | :--- |
| Fluid | Hydraulic oil as per DIN $51524 \ldots 535 ;$ |
| Recommended viscosity | $15 \div 100 \mathrm{~mm}^{2} / \mathrm{s}$ at $40^{\circ} \mathrm{C}$ (ISO VG $15 \div 100$ ) |
| Fluid contamination class | ISO 4401 class $21 / 19 / 16$ NAS 1638 class 10 (filters at 25 $\mu \mathrm{m}$ value with $\beta 25 \geq 75$ recommended) |
| Fluid temperature | $\mathrm{T} \leq 80^{\circ} \mathrm{C}$ |
| Flow direction | As shown in the symbol at section 2 |
| Rated flow | See diagram Q/Dp at section 4 |
| Orifice flow characteristics | See diagram at section 5 |

4 FLOW VERSUS PRESSURE DROP DIAGRAMS Based on based on mineral oil ISO VG 46 at $50^{\circ} \mathrm{C}$


5 FLOW CHARACTERISTICS THROUGH THE CALIBRATED ORIFICES


6 DIMENSIONS [mm]


