

#### **ONE-WAY CHECK VALVE (BUILT IN)**

|KE 5046| 08/15 |

#### pmax 35 MPa |Qmax 10dm³/min

One-way check valves CV are used for leak-free closure of an oil flow in one direction.

Built-in design | Any working position | Proven design



# FUNCTIONAL DESCRIPTION

One-way check values CV are used for leakfree closure of an oil in one direction (2 (2)  $\rightarrow$  1) in a hydraulic circuit. It the opposite direction they allow free flow (1  $\rightarrow$  2 (2)). The value design determines the value to be installed in hydraulic distribution blocks.



### DELIVERY

One-way check valves CV are delivered assembled including both O-ring and back-up ring. Full sealing kit including one O-ring NBR70 5x15 and one teflon back-up ring 5.5/8/0.5 can be ordered as a spare part.

### INSTALLATION, SERVICE AND MAINTENANCE

One-way check valves CV can be mounted in any working position. The reliability of the valve is conditional upon use of prescribed working fluid (see technical data), especially its parameters such as purity and temperature. Before installation O-ring and back-up ring must not be disshaped or damaged by any means.



# **TECHNICAL DATA**

| Technical data                        | Symbol   | Unit                 | Value                   |
|---------------------------------------|--|----------------------|-------------------------|
| Nominal pressure                      | $p_n$  | Mpa                  | 32                      |
| Maximal pressure                      | $p_{\max}$   | MPa                  | 35                      |
| Maximal flow                          | Q <sub>max</sub>   | dm <sup>3</sup> /min | 10                      |
| Opening pressure                      | po   | MPa                  | 0.03 ~ 0.05   0.3 ~ 0.5 |
| Fluid temperature range               | t <sub>po</sub>  | °C                   | -20 ~ +80               |
| Environment temperature range         | t <sub>k</sub>   | °C                   | -20 ~ +70               |
| Maximum degree of fluid contamination | a) class 9 according to NAS 1638, 18/15 according to ISO 4401 b) fluid filtration - $\beta_{20} \ge 100$ |                      |                         |
| Oil viscosity range                   | ν  | mm <sup>2</sup> /s   | 10 ~ 400                |
| Flow characteristic $\Delta p = f(Q)$ | see curves   |                      |                         |
| Hydraulic fluid                       | Mineral oil (HL, HLP) according to DIN 51 524  |                      |                         |
| Weight                                | m  | kg                   | 0,05                    |

#### DIMENSIONS



# **INSTALLATION CAVITY**



A(5:1)



PRESSURE DROP  $\Delta p = f(Q)$ CV-1/4-05



Measured at t = 45 °C and  $\nu$  = 36mm²/s



# **PRESSURE DROP** $\Delta \mathbf{p} = \mathbf{f}(\mathbf{Q})$

CV-1/4-40



Measured at t = 45 °C and  $\nu$  = 36mm²/s

NOTES

CV

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