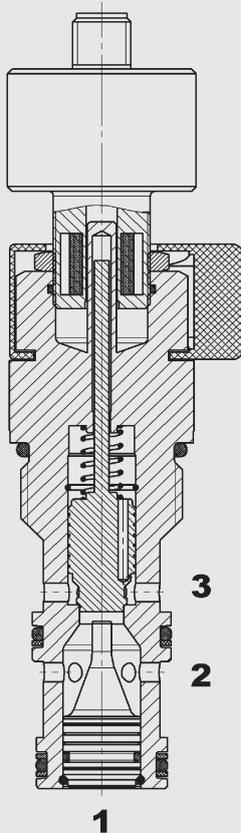


FUNCTION



The pilot-to-open check valve is a direct-acting, spring-loaded poppet valve with electronic switch position monitoring. The compression spring holds the poppet in the closed position and therefore shuts off flow from port 3 to port 2, even if pressure has built up at port 3. The valve opens when the pressure at port 2 is higher than the pressure at port 3, including the pressure created by the spring force. If a control pressure is applied at port 1, the poppet is lifted from the valve seat and oil flows from port 1 to 2. The necessary pilot pressure at port 1 is dependent on the pressures across port 2 and 3.

Check Valve pilot-to-open poppet type, direct-acting with electronic switch position monitoring UNF Cartridge- 350 bar RP16B-01E

FEATURES

- With integrated, electronic switch position monitoring
- Direct connection of the sensor to the main spool ensures a direct signal
- Highly robust design
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1000 h Salt spray test)

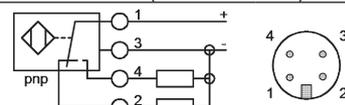
SPECIFICATIONS*

Operating pressure:	max. 350 bar
Nominal flow:	max. 120 l/min
Pilot ratio:	3:1 $p_{\text{pilot}} \pm 2 \text{ bar} = (p_2 \times 0.65) + (p_3 \times 0.35) + 0.7$
Internal leakage:	leak-free, max. 5 drops/min (0.25 cm ³ /min) at $p_3 = 350 \text{ bar}$ and $p_2 = 0 \text{ bar}$, $v = 46 \text{ mm}^2/\text{s}$
Cracking pressure:	approx. 2 bar (30 PSI) approx. 5 bar (70 PSI)
Media operating temperature range:	min. -30 °C to max. +100 °C
Ambient temperature range:	min. -30 °C to max. + 80 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1, 2 and 3
Viscosity range:	min. 7.4 mm ² /s to max. 420 mm ² /s
Filtration of operating fluid: (to ISO 4406)	$p \leq 210 \text{ bar}$: min. class 20/18/15 $p > 210 \text{ bar}$: min. class 18/16/13
MTTF _d :	150–1200 years, according to DIN EN ISO 13849-1
Installation:	No orientation restrictions
Materials:	Valve body: steel Piston: hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C) Back-up rings: PTFE
Cavity:	FC16-3
Weight:	0.64 kg

Sensor data

Supply voltage:	24 volt: 20 to 32 VDC 12 volt: 10.5 to 16 VDC
Reverse polarity protection of supply:	yes
Outputs:	2 with change-over function PNP, positive switching
Output load:	≤ 400 mA, 100% continuous
Short circuit protection:	Resistant to short circuits
Connector:	Round connector M12x1 (4-pin)
Protection class:	IP65 to DIN 40050
EC conformity:	93/68/EEC 2014/30/EU
EMC:	DIN EN 6100-6-1-2-3-4
Humidity requirements:	0 – 95% rel. (to DIN 40040)

Sensor connections:



* see "Conditions and Instructions for Valves" in brochure 53.000

