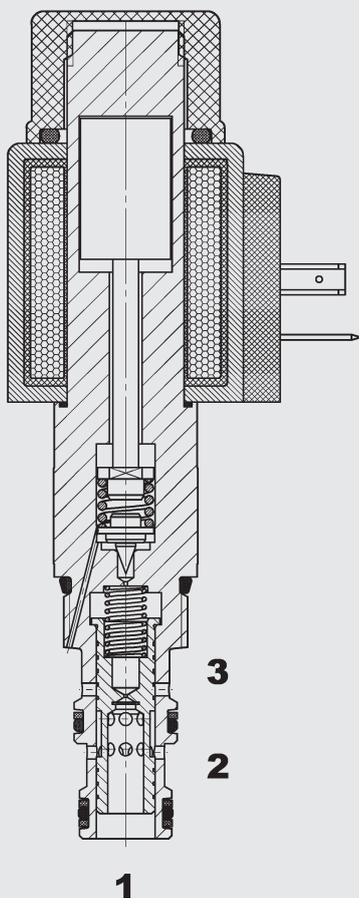


FUNCTION



The proportional pressure reducing valve PDR08P is a pilot-operated, 3-way spool-type valve. Its function is to maintain a constant pressure at consumer port 1. As a function of the electrical control signal the regulated pressure can be changed steplessly - irrespective of the pump pressure. If the pressure at port 1 rises above the setting, the pilot stage opens and oil flows from behind the main spool to tank port 3 to maintain the set pressure. Any pressure at tank port 3 is additive to the pre-set control pressure!

3-Way Proportional Pressure Reducing Valve Spool Type, Pilot-Operated SAE-08 Cartridge – 350 bar PDR08P-01

FEATURES

- External surfaces zinc-plated and corrosion-proof
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Excellent stability throughout the entire flow range
- Excellent dynamic performance
- Low pressure drop due to CFD optimized flow path
- Screen protected metering orifice enhances safety

SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 60 l/min
Operating pressure ranges:	up to 60 bar up to 230 bar up to 350 bar
Media operating temperature range:	min. -20 °C to max. +100 °C
Ambient temperature range:	min. -20 °C to max. +60 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2
Viscosity range:	min. 7.4 mm ² /s to max. 420 mm ² /s
Filtration:	Class 18/16/13 to class 19/17/14 to ISO 4406 or cleaner
MTTF _d :	150 years*
Installation:	No orientation restrictions
Materials:	Valve body: free-cutting steel Spool: hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C) Back-up rings: PTFE Coil: steel / polyamide
Cavity:	FC08-3
Weight:	Valve complete 0.45 kg Coil only 0.23 kg

Electronic data:

Control currents:	1050 mA, 8.8 Ω (24 Volt) 2100 mA, 2.2 Ω (12 Volt)
Internal leakage:	less than 0.5 l/min at 350 bar
Dither frequency:	approx. 160 Hz - 250 Hz
Response time:	energized: approx. 60 ms de-energized: approx. 40 ms
Hysteresis with dither:	2-4% of I _{nom}
Repeatability:	1,5% of I _{nom}
Reversal error:	≤ 2% of I _{nom}
Response sensitivity:	≤ 1 % of I _{nom}
Coil type:	Coil...-40-1836

The PDR08P can also be supplied with an emergency pressure adjustment (version -01M). This allows a manual pressure adjustment of the valve if the electrical signal is interrupted. This adjustment should be used only in the case of electrical failure since the manual setting would be additive to the electrical setting and the system could be damaged when power is restored.

* see "Conditions and instructions for valves" in brochure 5.300

