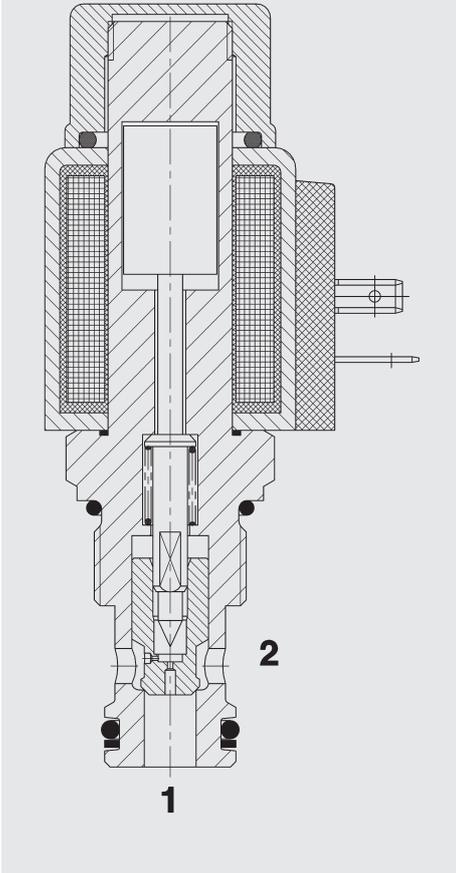


FUNCTION



The directional valve is a pilot operated valve in poppet style. When de-energized, there is free flow through the valve from port 2 to 1. Flow is not possible in the reverse direction. When the solenoid coil is energized, the valve is closed from port 2 to port 1. In the reverse direction the valve will allow flow from port 1 to 2 when the hydraulic force on the piston overcomes the solenoid force (approx. 2.5 to 10 bar).
Please mind: In pilot operated solenoid valves, shift performance and response times depend i.a. very much on pressure drop and volume flow during actuation.

2/2 Solenoid Directional Valve Poppet Type, Pilot Operated Normally Open Metric Cartridge – 350 bar WSM10120Y-01

FEATURES

- Coil seals protect the solenoid system
- Wide variety of connectors available
- Excellent switching performance by high power HYDAC solenoid
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1.000 h Salt spray test)

SPECIFICATIONS*

Operating pressure:	max. 350 bar
Nominal flow:	max. 75 l/min
Internal leakage:	Leakage-free max. 5 drops/min (0.25 cm ³ /min) at 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, 2 and 3
Viscosity range:	min. 10 mm ² /s to max. 420 mm ² /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
MTTF _d :	150 – 1200 Jahre, Bewertung nach DIN EN ISO 13849-1
Installation:	No orientation restrictions
Materials:	Valve body: free-cutting steel Poppet: 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:	10120
Weight:	Valve complete: 0.37 kg Coil only: 0.19 kg

Electrical data

Type of voltage:	DC: direct current solenoid AC: alternating current solenoid with a bridge rectifier built into the coil
Current draw at 20 °C:	1.5 A at 12 V DC 0.8 A at 24 V DC
Voltage tolerance:	± 15 % of the nominal voltage
Coil duty rating:	Continuous up to max. 115 % of the nominal voltage at 60 °C ambient temperature
Response time: (at p _{max} , Q _{max} , v = 33 mm ² /s)	energized: approx. 60 ms de-energized: approx. 20 ms substantially extended response times possible at other operating conditions
Coil type:	Coil...-40-1836

* see "Conditions and instructions for valves" in brochure 53.000

