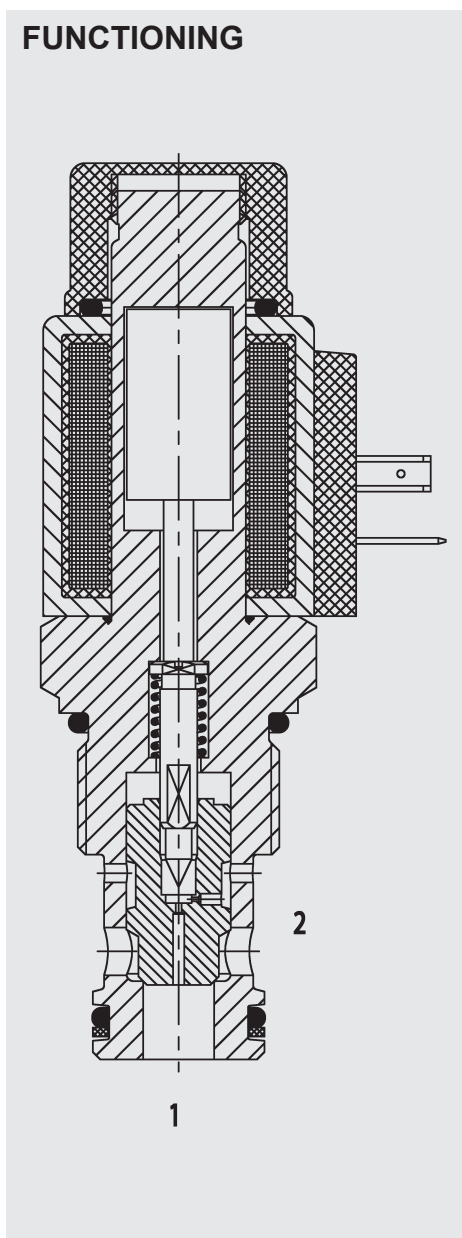


## FUNCTIONING



When de-energized, there is free flow through the valve from port 2 to 1. Flow in the opposite direction is not permitted.

When energized, the valve is closed from port 2 to port 1.

In the reverse direction there is free flow through the valve when the hydraulic force on the poppet exceeds the solenoid force (approx. 9 to 20 bar).

## 2/2 Solenoid Directional Valve Poppet Type, Pilot-Operated Normally Open Metric Cartridge – 350 bar WSM12120Y

### FEATURES

- External surfaces zinc-plated and corrosion-proof
- Hardened and ground control piston to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Excellent switching performance by high power HYDAC solenoid
- Low pressure drop due to CFD optimized flow path

### SPECIFICATIONS

Operating pressure:	max. 350 bar	
Nominal flow:	max. 110 l/min	
Internal leakage:	Leakage-free (max. 5 drops $\approx$ 0,25 cm <sup>3</sup> /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 and 2	
Viscosity range:	min. 7.4 mm <sup>2</sup> /s to max. 420 mm <sup>2</sup> /s	
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner	
MTTF <sub>d</sub> :	150 years (see "Conditions and instructions for valves" in brochure 5.300)	
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:	12120	
Weight:	Valve complete	0.49 kg
	Coil only	0.19 kg

### Electrical data:

Type of voltage:	DC solenoid, AC voltage is rectified using 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:	$\pm$ 15% of the nominal voltage	
Response time:	energized:	approx. 90 ms
	de-energized:	approx. 25 ms
Coil duty rating:	Continuous up to max. 115% of the nominal voltage at 60 °C ambient temperature	
Coil type:	Coil...40-1836	

