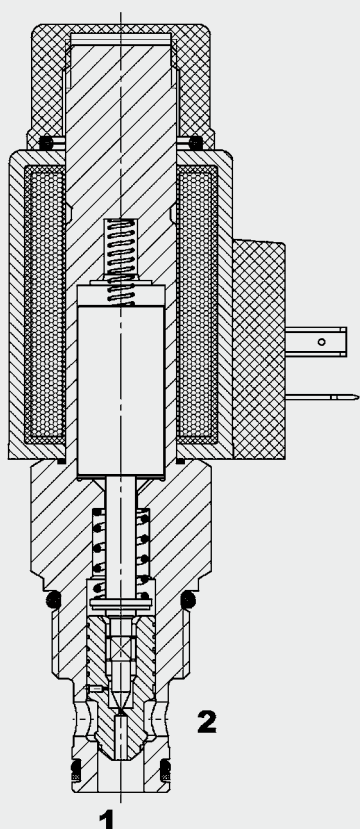


100 l/min
350 bar

FUNCTION



The proportional flow controller PWS10Z-11 is a pilot-operated, normally closed, spring-loaded poppet-type flow control valve.

It is non-compensated and its function is to smoothly control the flow from port 2 to port 1.

The energization of the coil opens the pilot stage and oil flows across an orifice to the back of the main piston.

The resulting pressure differential causes the main piston to follow the pilot stage. When combined with a pressure compensator the proportional flow controller can be used as a 2-way flow regulator – for example when required to lift/lower variable loads at the same velocity.

Proportional Flow Controller Poppet Type, Pilot-Operated, Normally Closed SAE-10 Cartridge – 350 bar

PWS10Z-11

FEATURES

- Stepless adjustment of the flow, depending on the coil current.
- Excellent stability throughout the entire flow range
- Excellent dynamic performance
- External surfaces zinc-plated
- Hardened and ground valve components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Low pressure drop by CFD optimized flow path
- On request: mechanical adjustment of one point of the curve (Version 11, without option M)
- Optional: Soft shift function with extended switching times possible

SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 100 l/min
Internal leakage:	leakage-free (max. 5 drops = 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 and 2
Viscosity range:	min. 10 mm ² /s to max. 420 mm ² /s
Filtration:	Class 19/17/14 to ISO 4406 or cleaner
MTTF _d :	150 years (see "Conditions and instructions for valves" in brochure 5.300)
Installation:	No orientation restrictions
Material:	Valve body: free-cutting steel Piston: 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:	FC10-2
Weight:	0.5 kg
Electronic data:	
Control current:	850 mA, 18.0 Ohm (24 Volt) 1750 mA, 4.1 Ohm (12 Volt)
Dither frequency:	120 Hz recommended (120 – 250 Hz)
Hysteresis with dither:	4-6% of I _{nom}
Repeatability:	≤ 1.5 % of I _{nom}
Reversal error:	≤ 2 % of I _{nom}
Response sensitivity:	≤ 1 % of I _{nom}
Type of coil:	Coil (12 or 24) P ...50-1836

NOTE

In order to achieve optimal function, any trapped air should be vented using the bleed screw on the face of the pole tube.

