

PROPORTIONAL SPOOL VALVES WVPPM33_90 WVPPM42_150

SPECIFICATIONS

| Designation | WVPPM33_90 | WVPPM42_150 |
|--------------------------------|---------------|---------------|
| Cartridge | M33x2 | M42x2 |
| p_{max} | 350 bar | 350 bar |
| p_v (pilot pressure) | 4.5 - 30 bar | 4.5 - 30 bar |
| Q | 0 - 150 l/min | 0 - 250 l/min |
| Q_N | 90 l/min | 150 l/min |
| Leakage volume flow at 200 bar | < 0.4 l/min | < 0.5 l/min |
| Ambient temperature | -30 to 90 °C | -30 to 90 °C |
| Weight | 0.8 kg | 1.4 kg |

DESCRIPTION

Pilot operated proportional spool valve in screw-in cartridge construction with precise spool fit, small leakage and long service life. The spool is made of hardened steel. The valve is controlled externally through a pilot pressure via the x and y connections. Without control, the spool is held in the central position by a spring. Proportional to the pilot pressure, the spool opening and the valve volume flow increase. Thanks to the optimum spool form, sensitive motion sequences are possible.



Application in construction machinery



M33 proportional spool valve with a maximum pressure of 350 bar and a maximum flow of 150 l/min



M42 proportional spool valve with a maximum pressure of 315 bar and a maximum flow of 250 l/min

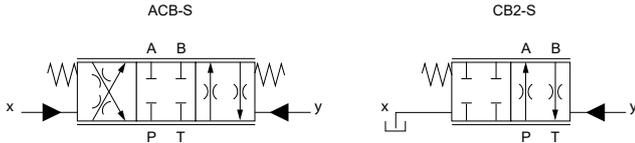
DESIGN

The spool and sleeve of these hydraulically operated proportional spool valves in cartridge design are made of hardened steel and the outer parts are zinc-nickel coated in accordance with the K8 standard.

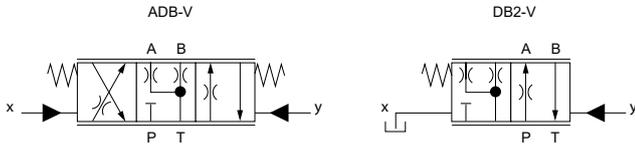


SYMBOL

Symmetry control

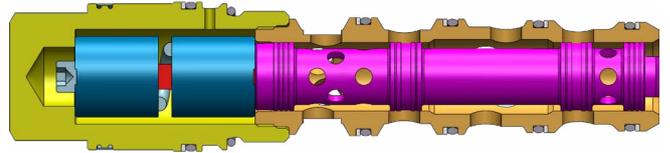


Forward flow control



Symbols WVPPM_

STRUCTURE



WVPPM_ Sectional drawing

APPLICATIONS

Proportional spool valves are perfectly suitable for demanding tasks due to the high resolution, large volume flow and low hysteresis. The applications are in the industrial as well as in the mobile hydraulics for the smooth control of hydraulic actuators. Some examples: rotor blades control of wind generators, forestry and earth moving machines, machine tools and paper production machines with simple position control, robotics and fan control.

- Sensitive regulation of the pressure or the flow rate, e.g. by means of a joystick
- Control of the speeds of hydraulic motors
- Cylinder control and positioning
- With wide ambient temperature range for outdoor use

FEATURES

- Compact construction
- Designed for very high pressures
- Sensitive and smooth motion sequences despite large dimensioning
- High resolution with low hysteresis
- Low leakage volume flow

