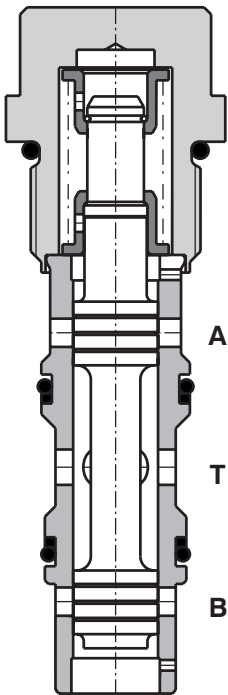


**SD2H-LA3**

M24 x 1.5 • Q<sub>max</sub> 40 l/min (11 GPM) • p<sub>max</sub> 320 bar (4600 PSI)

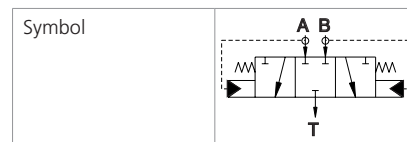


**Technical Features**

- › Hardened precision parts
- › High flow capacity
- › Simple design and reliable function
- › Optional pressure ranges
- › Automatic alternating fluid discharge from the low-pressure line of hydrostatic circuit
- › Standard version of the valve is zinc-coated with the surface corrosion protection 240 h in NSS acc. to ISO 9227

**Functional Description**

3-way screw-in cartridge valve is designed for the specific function discharging of heated working fluid from the closed hydrostatic circuit through a cooler and a filter to the tank. The spool is operated hydraulically and provides automatically fluid discharging always from the low-pressure line. Closed hydrostatic drives are generally loaded with high transmitted power. Losses, generating due the transformation of mechanical energy into pressure energy and vice versa, turn into heat. It leads to the thermal load of equipment and to the necessity to connect a cooler to the circuit.



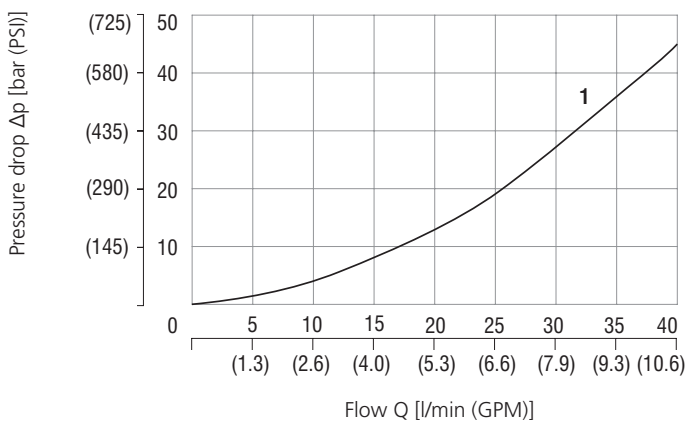
**Technical Data**

Valve size / Cartridge cavity		M24 x 1.5 / LA3	
Max flow	l/min (GPM)	40 (10.6)	
Max. operating pressure	bar (PSI)	320 (4640)	
Cracking pressure	bar (PSI)	7 (102)	12 (174)
Fluid temperature range (NBR)	°C (°F)	-30...+100 (-22 ...+212)	
Fluid temperature range (FPM)	°C (°F)	-20 ...+120 (-4 ...+248)	
Weight	kg (lbs)	0.23 (0.50)	

		Datasheet	Type
General information		GI_0060	Products and operating conditions
Valve bodies	In-line mounted	SB_0018	SB-LA3* (on request)
	Sandwich mounted	SB-04(06)_0028	SB-*LA3* (on request)
Cavity details		SMT_0019	SMT-LA3*
Spare parts		SP_8010	

**Characteristics** measured at v = 32 mm<sup>2</sup>/s (156 SUS)

**Pressure drop related to flow rate**

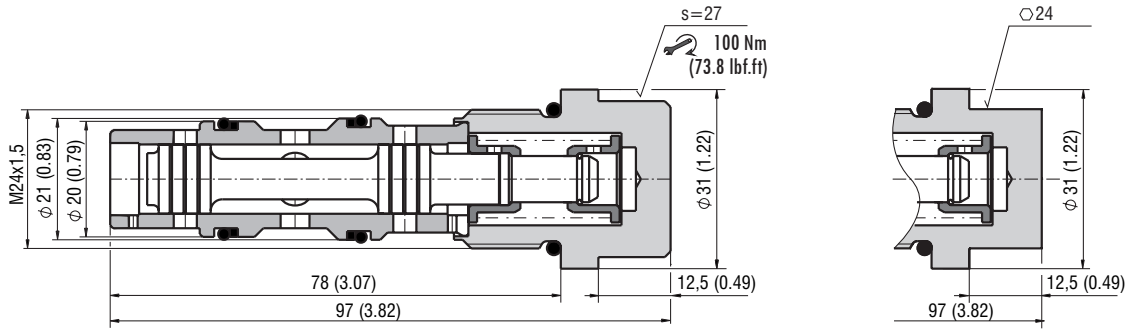


Connection	
1	B → T, A → T

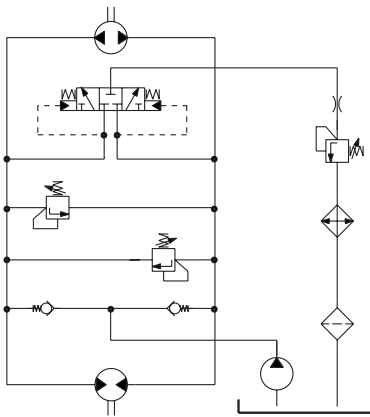
**Dimensions** in millimeters (inches)

**Cover cup - Standard**

**Cover cup - P**



**Application example**



This hot oil shuttle valve is typically used in hydrostatic transmissions. It discharges approximately 10% of the closed-loop hydrostatic flow through a cooler and a filter back to the tank. The valve senses the pressure in both branches and the spool is automatically operated to drain the heated fluid from the low-pressure line, it means from the line leading the fluid from the actuator back to the pump inlet. Reversing the pump rotation the pressure in branches is changed and the spool of valve is switched-over. The discharged flow is adjusted with downstream pressure relief valve which is typically set at 15 to 30 bar (at 200 to 400 PSI). The cooled and filtered fluid is refilled to the low-pressure line by means of a gear pump via check valves.

**Ordering Code**

<b>SD2H - LA3 / H</b>							-	
<b>3/3 Hydraulically operated hot oil shuttle valve for hydrostatic drives, screw-in cartridge design</b>								
<b>Valve cavity</b> M24 x 1.5								
<b>Model</b> High performance								
<b>Cracking pressure</b> 7.0 bar (102 PSI) 12.0 bar (174 PSI)				<b>070</b>				
				<b>120</b>				
								<b>Surface treatment</b>
								<b>A</b> zinc-coated (ZnCr-3), ISO 9227 (240 h)
								<b>B</b> zinc-coated (ZnNi), ISO 9227 (520 h)
								<b>Seals</b>
								<b>No designation</b> <b>V</b>
								NBR
								FPM (Viton)
								<b>Cover cup</b>
								<b>No designation</b> <b>P</b>
								standard - across flats 27 mm
								HEX 24