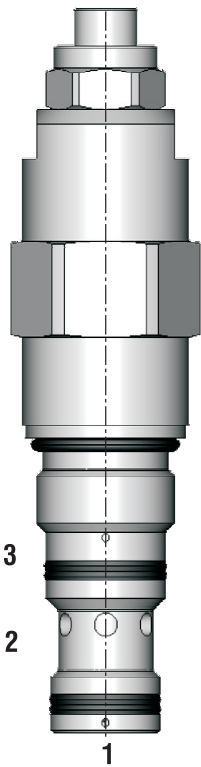


Overcenter Valve

SO5A-BP3

7/8-14 UNF • Q_{max} 40 l/min (11 GPM) • p_{max} 420 bar (6100 PSI)

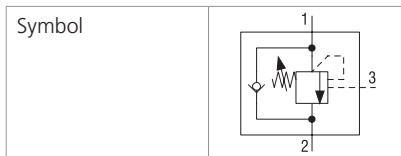


Technical Features

- › The valve prevents runaway ahead of the pump in the event of a negative load
- › Load-holding with leak-free closing poppet when the directional control valve is in neutral position
- › Pressure relief function protecting the actuator against overloading and pressure peaks
- › Integrated check valve acting as an anti-cavitation valve
- › When installed close to actuator the valve can be used as a hose burst valve
- › Setting can be performed during machine operation = leak free closing of adjustable element
- › Wide range of relief pressure setting up to 420 bar (6100 PSI)
- › In the standard version, the valve is zinc-coated for 520 h protection acc. to ISO 9227

Functional Description

Poppet-type, screw-in motion control valve designed to control the runaway of a negative load. The built-in check valve allows reverse flow into the actuator, which is protected by the internal pressure relief function.



Technical Data

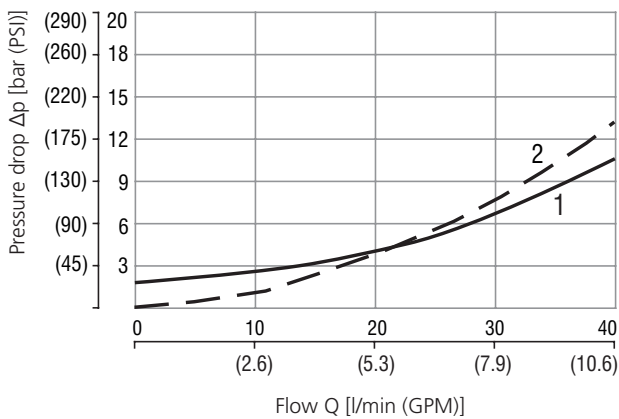
Valve size / Cartridge cavity		7/8-14 UNF-2A / BP3 (C-10-3S)			
Max. flow	l/min (GPM)	40 (10.6)			
Relief pressure range		21	32	42	
Max. load induced pressure	bar (PSI)	175 (2540)	265 (3840)	350 (5080)	
Max. relief pressure	bar (PSI)	210 (3050)	320 (4640)	420 (6090)	
Fluid temperature range (NBR)	°C (°F)	-30... +100 (-22... +212)			
Fluid temperature range (FPM)	°C (°F)	-20... +120 (-4... +248)			
Pilot ratio		2.5:1	5:1	8:1	10:1
Leakage	ml/min	0.3 (5 drops per min)			
Weight	kg (lbs)	0.29 (0.64)			

		Datasheet	Type
General information		GI_0060	Products and operating conditions
Valve bodies	In-line mounted	SB_0018	SB-BP3*
	Sandwich mounted	SB-04(06)_0028	SB-BP3*
Cavity details		SMT_0019	SMT-BP3*
Spare parts		SP_8010	

Characteristics measured at $v = 40 \text{ mm}^2/\text{s}$ (195 SUS)

Pressure drop related to flow rate

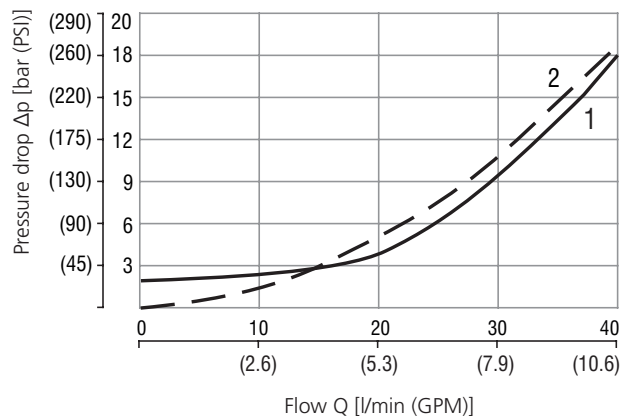
Pilot ratio 2.5:1 and 5:1



Flow	
1	free flow (2→1)
2	pilot open (1→2)

Pressure drop related to flow rate

Pilot ratio 8:1

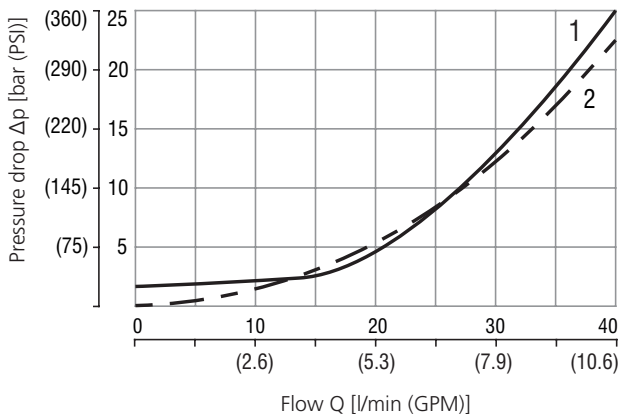


Flow	
1	free flow (2→1)
2	pilot open (1→2)

Characteristics measured at $v = 40 \text{ mm}^2/\text{s}$ (195 SUS)

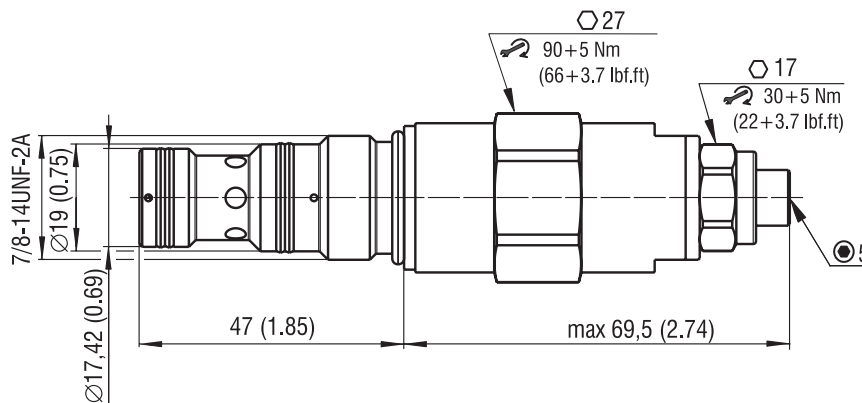
Pressure drop related to flow rate

Pilot ratio 10:1



Flow	
1	free flow (2→1)
2	pilot open (1→2)

Dimensions in millimeters (inches)



Ordering Code

SO5A - BP3 / H - **S** - **B**

Overcenter valve

Valve cavity
7/8-14 UNF (C-10-35)

Model
High performance

Pilot ratio		
standard	2.5:1	2
	5:1	5
	8:1	8
	10:1	10

Relief pressure range	
70 - 210 bar (1020 - 3050 PSI)	21
106 - 320 bar (1540 - 4640 PSI)	32
140 - 420 bar (2030 - 6090 PSI)	42

Surface treatment
zinc-coated (ZnNi), ISO 9227 (520 h)

No designation
V

Seals
NBR
FPM (Viton)

Adjustment option
allen head (Hex. 5) without protective cap