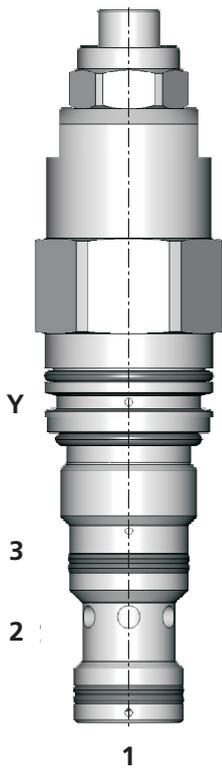


Overcenter Valve Fully Balanced, External Drain

SOBD5A-BPY3

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

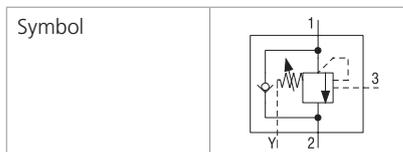


Technical Features

- › 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
- › Back pressure has got negligible effect on relief setting nor the required pilot pressure
- › 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)
- › Spring chamber is connected to external drainage port Y
- › 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. Back pressure at port 2 has got negligible effect to the pressure relief setting and the required pilot pressure.



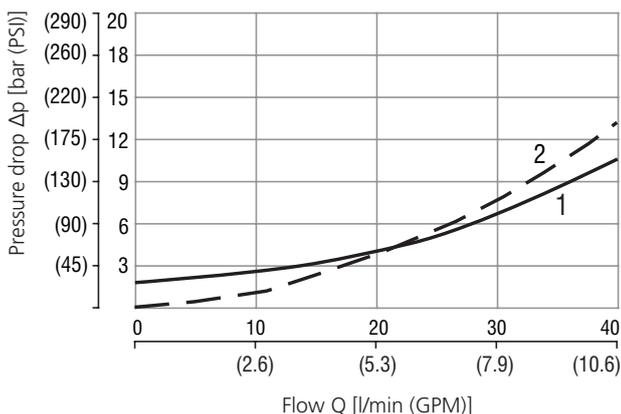
Technical Data

Valve size / Cartridge cavity		7/8-14 UNF-2A / BPY3		
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 (6100)
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	
Leakage	ml/min	0.3 (5 drops per min)		
Weight	kg (lbs)	0.29 (0.64)		
	Datasheet	Type		
General information	HA 0060	Products and operating conditions		
Valve bodies	In-line mounted	HA 0018	SB-BPY3*	
	Sandwich mounted	HA 0028	SB-06-BPY3*	
Cavity details	HA 0019	SMT-BPY3*		
Spare parts	HA 8010			

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

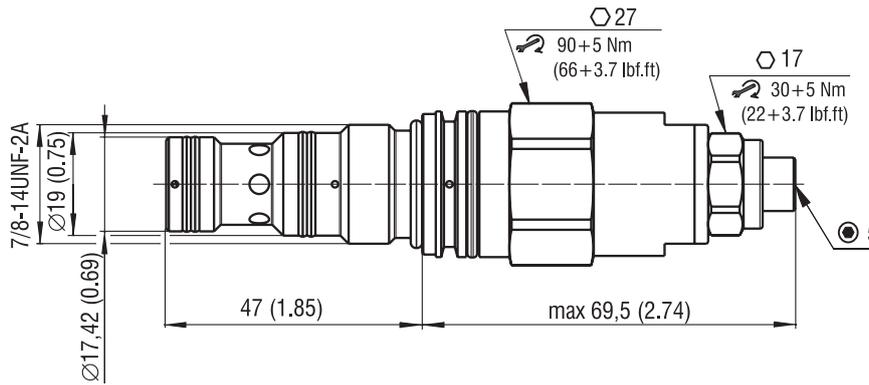
Pressure drop related to flow rate

Pilot ratio 2.5:1 and 5:1



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

Dimensions in millimeters (inches)



Ordering Code

SOBD5A - BPY3 / H - S - B

Overcenter valve fully balanced,
external drain to Y port

Valve cavity
7/8-14 UNF

Model
High performance

Pilot ratio

standard	2.5:1	2
	5:1	5

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