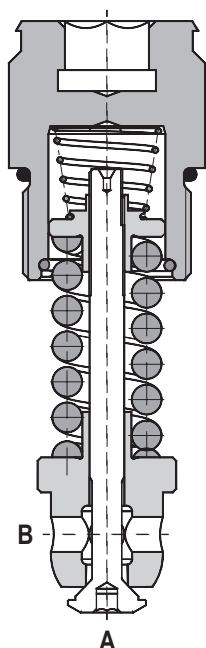


Pressure Relief Valve with Reverse Flow Check, Poppet Type, Not Adjustable

DBV3

M24x1.5 • Q_{max} 200 l/min (53 GPM) • p_{max} 480 bar (7000 PSI)



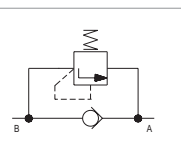
Technical Features

- › Excellent stability throughout flow range with rapid response to dynamic pressure changes
- › Low hysteresis, accurate pressure control and low pressure drop through CFD optimized flow paths
- › Adjustable pressure range 160-480 bar
- › Factory pre-set, non adjustable version only
- › Hardened precision parts
- › Sharp-edged steel seats for dirt-tolerant performance
- › Leak-free closing, suitable for fast cycling with long life
- › One-way bypass valve with suction function
- › In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227. Enhanced surface protection for mobile sector available for the steel parts (ISO 9227, 520 h salt spray)

Functional Description

A direct acting, poppet type hydraulic relief valve in the form of a screw-in cartridge with reverse flow check intended for use as a pressure limiting and anti-cavitation device for common hydraulic circuit protection. The spring acts on the poppet and presses it on the valve seat. If the hydraulic pressure is below the pre-set value, the valve is closed. If the hydraulic force exceeds the pre-set value, the valve opens and flow passes to the tank port until the system pressure drops below the spring pre-set value and the valve closes again.

Symbol



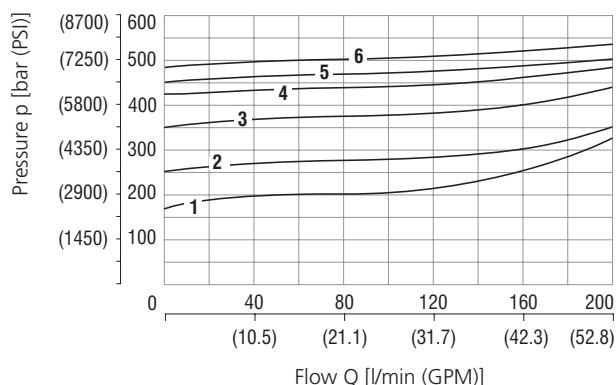
Technical Data

Valve size / Cartridge cavity		M24x1.5 / QH2
Max. flow	l/min (GPM)	200 (52.8)
Max. operating pressure	bar (PSI)	480 (6960)
Fluid temperature range (NBR)	°C (°F)	-30... +100 (-22 ... +212)
Fluid temperature range (FPM)	°C (°F)	-20 ... +120 (-4 ... +248)
Weight	kg (lbs)	0.16 (0.36)
	Datasheet	Type
General information	GI_0060	Products and operating conditions
Cavity details	SMT_0019	SMT-QH2 *
Spare parts	SP_8010	

Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

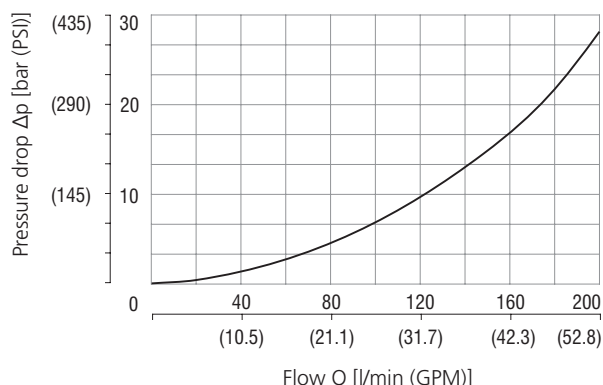
Relief pressure related to flow rate

Pressure relief function, flow direction 2 - 1

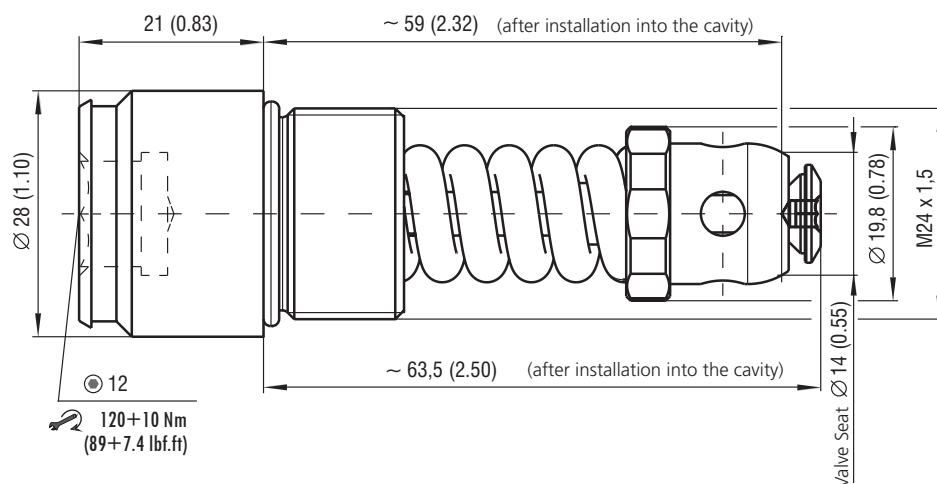


Pressure drop related to flow rate

Check valve function, flow direction 1 - 2



Dimensions in millimeters (inches)



Ordering Code

DBV 3 - [] / 4 - [] - []			
Pressure relief valve with reverse flow check, poppet type, direct acting, non-adjustable	Design stage	Adjusted cracking pressure*	<p>Surface treatment</p> <p>No designation phosphated valve cup</p> <p>A zinc-coated (ZnCr-3), ISO 9227 (240 h)</p> <p>B zinc-coated (ZnNi), ISO 9227 (520 h)</p> <p>Seals</p> <p>No designation</p> <p>V NBR FPM (Viton)</p> <p>Model</p> <p>M1 M24x1.5</p> <p>S1 SAE 12</p> <p>Factory setting of the cracking pressure always at volume flow 4 l/min (1.06 GPM)</p>
		160 bar (2320 PSI)	160
		250 bar (3630 PSI)	250
		350 bar (5080 PSI)	350
		420 bar (6090 PSI)	420
		450 bar (6530 PSI)	450
		480 bar (6960 PSI)	480

*Other options for setting the cracking pressure on request.