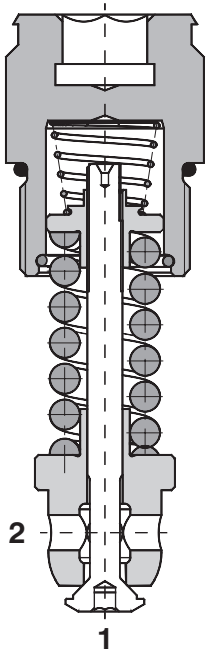


Pressure Relief Valve with Reverse Flow Check, Poppet Type, Not Adjustable

DBV3

M24 x 1.5 • Q_{max} 200 l/min (53 GPM) • p_{max} 480 bar (7000 PSI)



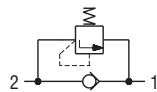
Technical Features

- › 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

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



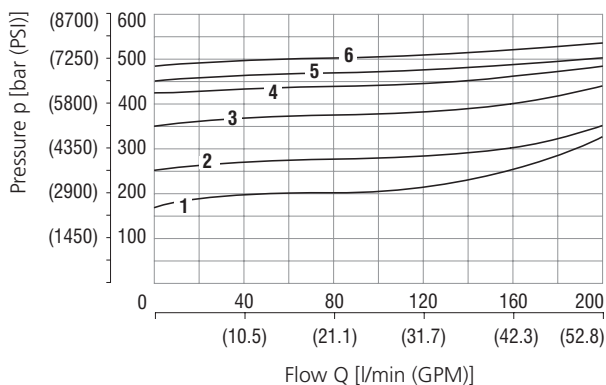
Technical Data

Valve size / Cartridge cavity		M24 x 1.5 / 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)

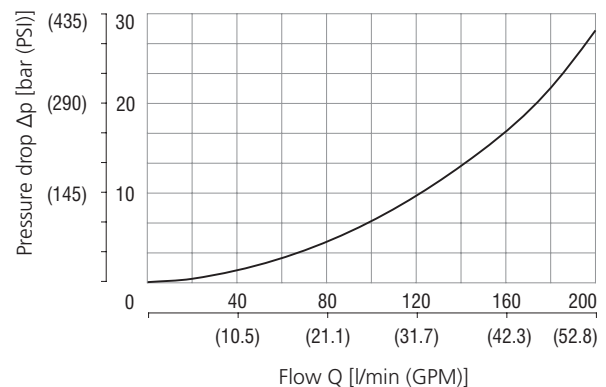
Relief pressure related to flow rate

Pressure relief function, flow direction 2 - 1

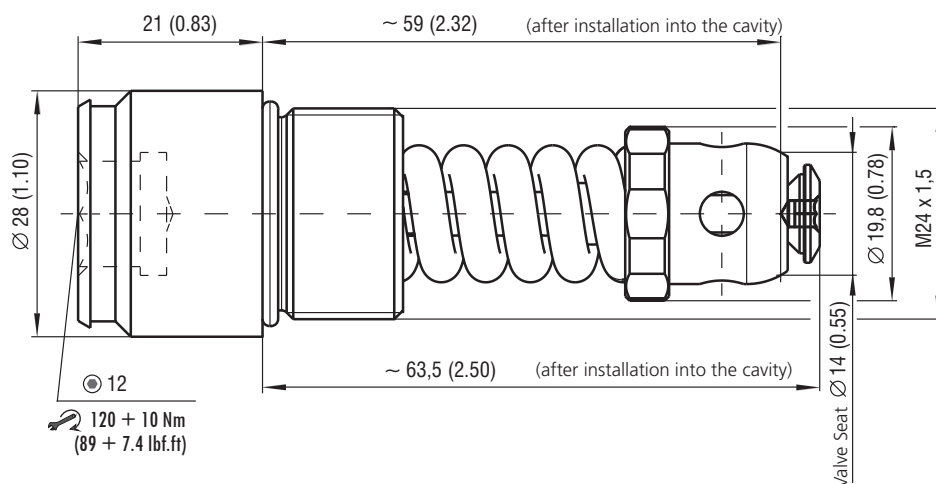


Pressure drop related to flow rate

Check valve function, flow direction 1 - 2



Pressure settings					
1	2	3	4	5	6
160	250	350	420	450	480

Dimensions in millimeters (inches)

Ordering Code
DBV 3 - **/ 4 -** -

Pressure relief valve with reverse flow check, poppet type, direct acting, non-adjustable

Design stage
Pressure range

up to 160 bar (2320 PSI)	160
up to 250 bar (3630 PSI)	250
up to 350 bar (5080 PSI)	350
up to 420 bar (6090 PSI)	420
up to 450 bar (6530 PSI)	450
up to 480 bar (6960 PSI)	480

Surface treatment
No designation phosphated valve cup
A zinc-coated (ZnCr-3), ISO 9227 (240 h)
B zinc-coated (ZnNi), ISO 9227 (520 h)

No designation
V

Seals
NBR
FPM (Viton)

M1
S1

Model
M24 x 1.5
SAE 12

*All standard valves settings are at flow 4 l/min (1.06 GPM)