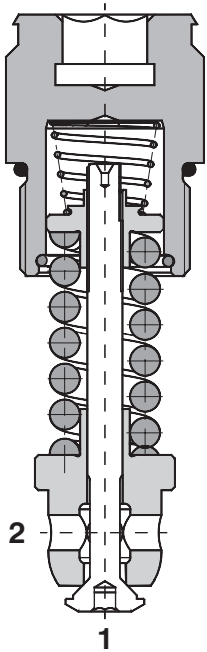


## Pressure Relief Valve with Reverse Flow Check, Poppet Type, Not Adjustable

# DBV3

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



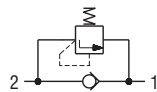
### Technical Features

- › 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, not 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



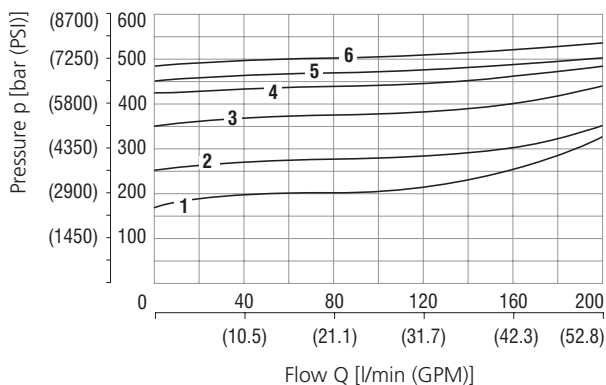
### Technical Data

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)
Mass	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)

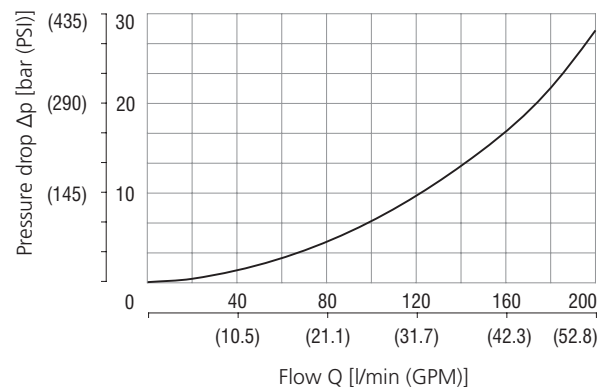
#### Relief pressure related to flow rate

Pressure relief function, flow direction 2 - 1



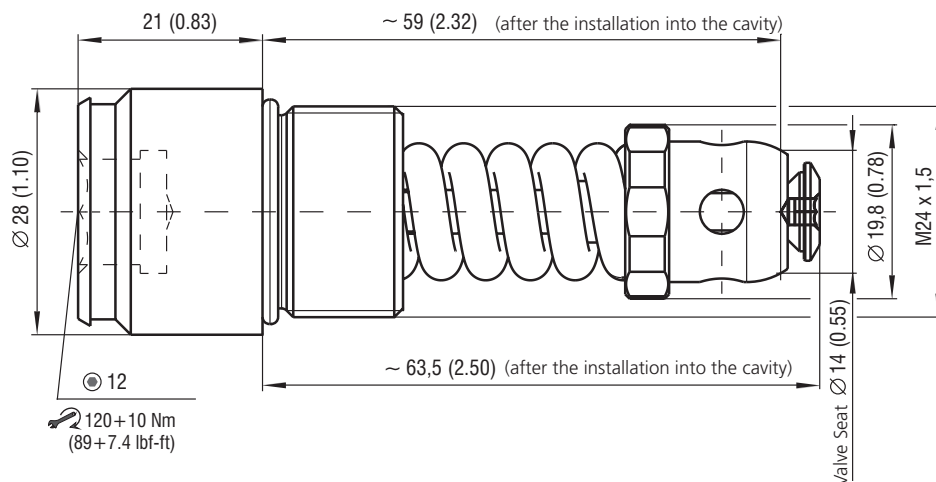
#### Pressure drop related to flow rate

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)	<b>160</b>
up to 250 bar (3630 PSI)	<b>250</b>
up to 350 bar (5080 PSI)	<b>350</b>
up to 420 bar (6090 PSI)	<b>420</b>
up to 450 bar (6530 PSI)	<b>450</b>
up to 480 bar (6960 PSI)	<b>480</b>

**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**  
 M24x1.5  
 SAE12

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