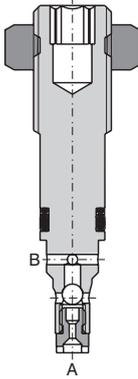


Needle - Restrictor Valve with Reverse Flow Check, Fine Adjustable

**VSV2**

M12x1 •  $Q_{max}$  20 l/min (5 GPM) •  $p_{max}$  320 bar (4600 PSI)

VSV2-QC2/J2



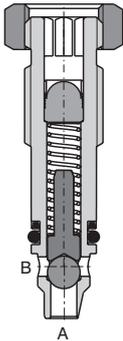
**Technical Features**

- › Reverse flow check option
- › Hardened precision parts
- › Fine low-torque adjustment
- › Linear adjustment and positive seat overlap
- › Optionally adjustable by allen key or hand screw
- › Desired settings may be locked down
- › 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 hydraulic flow restrictor valve in the form of a screw-in cartridge with an optional by-pass check valve. After loosening the lock nut the valve may be unscrewed up to the red marked safety notch. Beyond the marking, the valve may get completely unscrewed, leading to leakage.

VSV2-QC2/J1

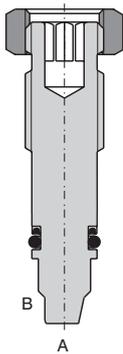


Model Code	VSV2-QC2/1	VSV2-QC2/J1	VSV2-QC2/J2
Symbol	A  B	A  B	A  B

**Technical Data**

Valve size / Cartridge cavity		M12x1 / QC2
Max. flow	l/min (GPM)	20 (5.3)
Max. operating pressure	bar (PSI)	320 (4640)
Fluid temperature range (NBR)	°C (°F)	-30 ... +100 (-22 ... +212)
Weight	kg (lbs)	0.11 (0.24)

VSV2-QC2/1

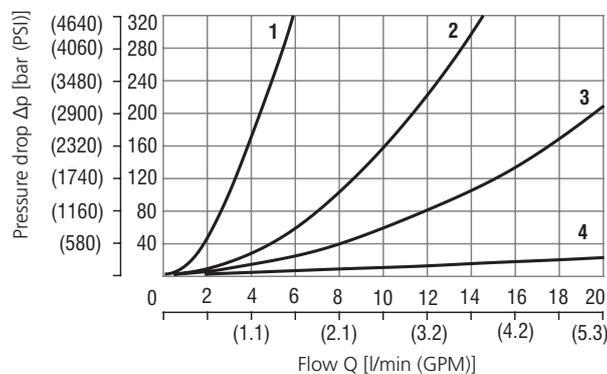


	Datasheet	Type
General information	GI_0060	Products and operating conditions
Cavity details	SMT_0019	SMT-QC2*
Spare parts	SP_8010	

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

**Pressure drop related to flow rate**

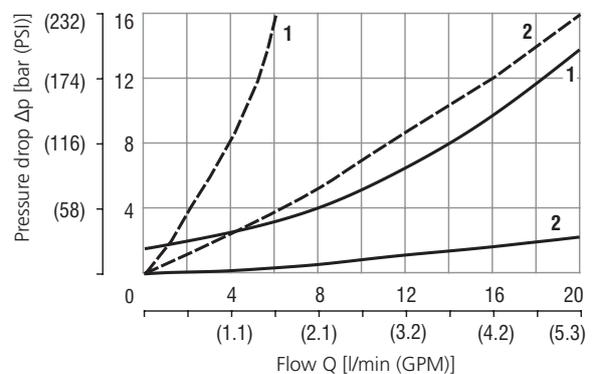
Flow direction B→A VSV2-QC2/1, VSV2-QC2/J1  
Flow direction A→B VSV2-QC2/1, VSV2-QC2/J2



Number of turns of the adjustment screw			
1	2	3	4

**Pressure drop related to flow rate**

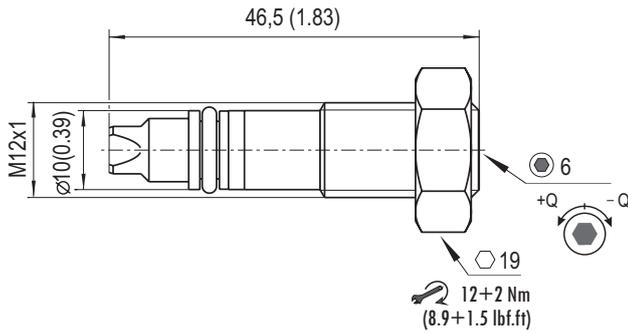
Flow direction A→B (free flow) VSV2-QC2/J1 ———  
Flow direction B→A VSV2-QC2/J2 - - - - -



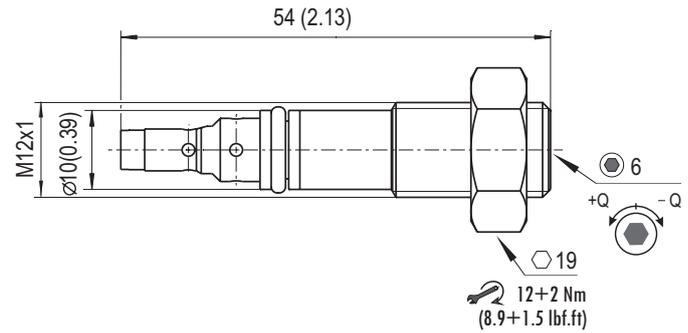
Throttle valve closed	Throttle valve opened
1	2

Dimensions in millimeters (inches)

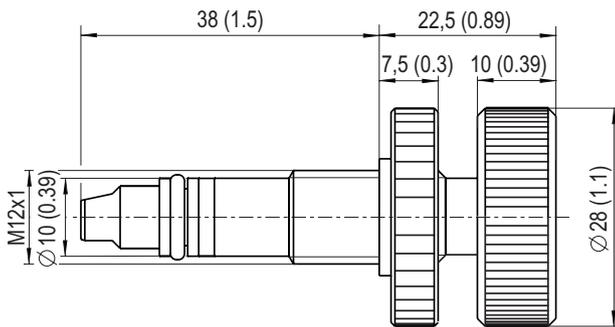
Models S: VSV2-QC2/1, VSV2-QC2/J1



Model S: VSV2-QC2/J2



Model RS: VSV2-QC2/1, VSV2-QC2/J1, VSV2-QC2/J2



Ordering Code

VSV2 - QC2 /    -

Needle - restrictor valve with reverse flow check, fine adjustable M12x1

**Model**  
without check valve **1**  
with check valve, unregulated flow A → B **J1**  
with check valve, unregulated flow B → A **J2**

**Surface treatment**  
No designation without surface treatment  
**A** zinc-coated (ZnCr-3), ISO 9227 (240h)  
**B** zinc-coated (ZnNi), ISO 9227 (520h)

**Seals**  
No designation NBR

**Adjustment option**  
**S** allen key (hex. 6), without protective cap  
**RS** hand screw, metal\*

\* Comfortable pressure adjustment using the metal hand screw **RS** is possible for configuration 1 and J1 when throttling in the B → A direction up to input pressure 150 bar.