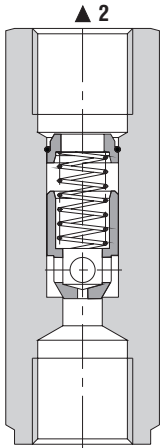


## Check Valve with One-Way Throttling, Poppet Type, In-Line

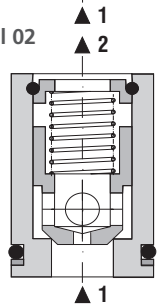
# VJS3

Size 06, 10, 16, 20 •  $Q_{max}$  250 l/min (66 GPM) •  $p_{max}$  320 bar (4600 PSI)

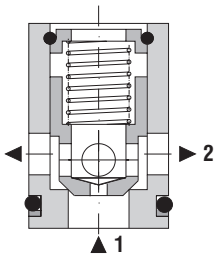
Model G1, M1, S



Model 02



Model 03



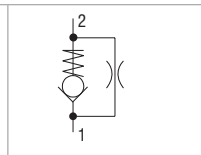
### Technical Features

- › Check valve, one-way throttling, poppet type, guided in-line mounted or slip-in cartridge
- › Hardened precision parts
- › Sharp-edged steel seats for dirt-tolerant performance
- › Wide range of orifice diameters available
- › Optional bias spring ranges for back-pressure control
- › High flow capacity
- › In the standard version, the surface of the valves for in-line mounting is zinc-coated for 240 h protection acc. to ISO 9227. Slip-in cartridges (types 02 and 03) are without surface treatment

### Functional Description

An in-line or drop-in hydraulic check valve for use as a blocking or load-holding device. Includes a by-pass throttling orifice. The valve has a poppet check which is closed by spring until sufficient pressure is applied at port 1 to open flow to port 2. In the direction from port 2 to 1 the flow is restricted by the orifice.

Symbol



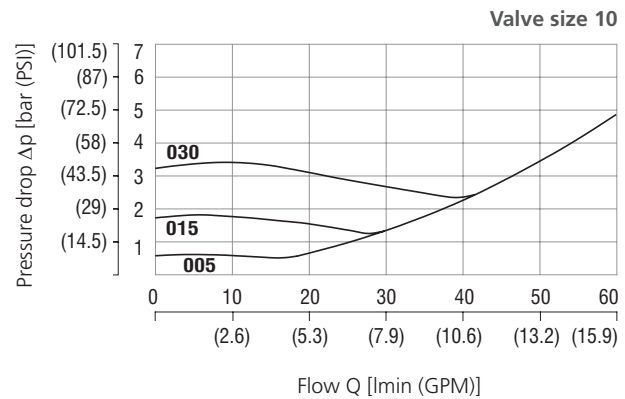
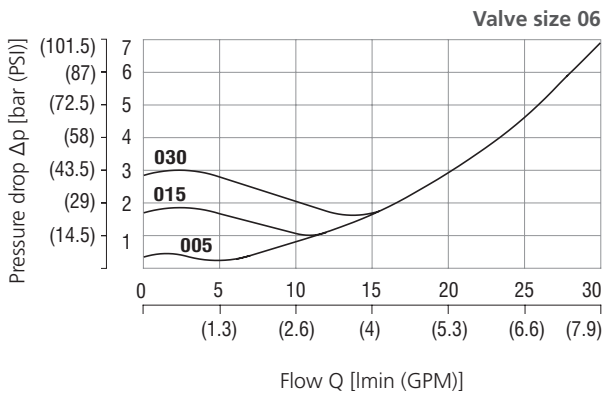
### Technical Data

Valve size		06	10	16	20
Max. flow	l/min (GPM)	30 (7.9)	60 (15.9)	160 (42.3)	250 (66)
Max. operating pressure	bar (PSI)	320 (4640)			
Cracking pressure	bar	0.5	1.0	1.5	3.0
	(PSI)	(7.25)	(14.5)	(21.8)	(43.5)
Fluid temperature range (NBR)	°C (°F)	-30 ... +100 (-22 ... +212)			
Mass	- models G1, M1, S	0.11 (0.24)	0.34 (0.75)	0.52 (1.15)	0.95 (2.09)
	- models 02, 03	0.05 (0.11)	0.09 (0.2)	0.22 (0.49)	0.26 (0.57)

	Datasheet	Type
General information	GI_0060	Products and operating conditions
Cavity details	SMT_0019	
Spare parts	SP_8010	

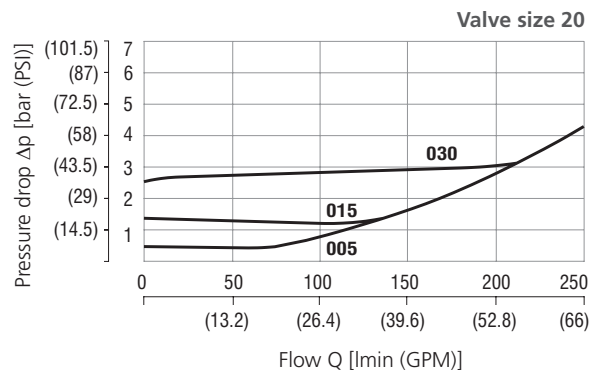
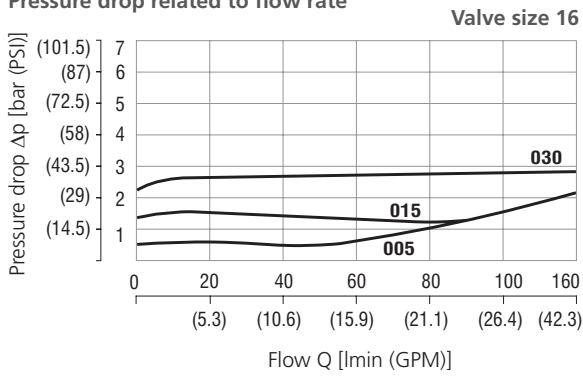
### Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

#### Pressure drop related to flow rate



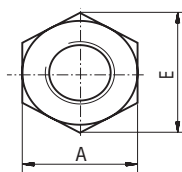
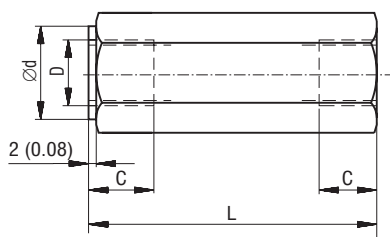
**Characteristics** measured at  $v = 32 \text{ mm}^2/\text{s}$  (156 SUS)

**Pressure drop related to flow rate**

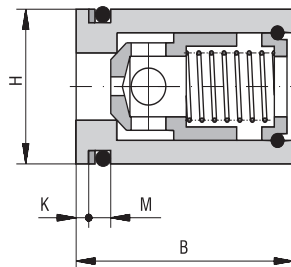


**Dimensions** in millimeters (inches)

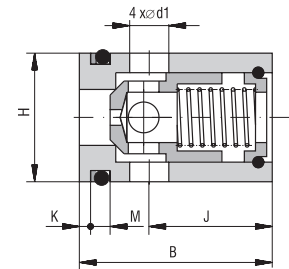
**Models G1, M1, S**



**Model 02**



**Model 03**



Size	A	B	C	D			Ø d
				G1	M1	S	
06	19 (0.75)	27 - 0.2 (1.06 - 0.008)	12 (0.47)	G 1/4	M14x1.5	SAE-6, 9/16-18	19 (0.75)
10	30 (1.18)	32 - 0.2 (1.26 - 0.008)	14 (0.55)	G 1/2	M18x1.5	SAE-8, 3/4-16	30 (1.18)
16	36 (1.42)	45 - 0.2 (1.77 - 0.008)	16 (0.63)	G 3/4	M27x2	SAE-12, 1 1/16-12	36 (1.42)
20	46 (1.81)	45 - 0.2 (1.77 - 0.008)	18 (0.71)	G 1	M33x2	SAE-16, 1 5/16-12	46 (1.81)

Size	Ø d1	E	H	J	K	L	M
06	3.5 (0.14)	22 (0.87)	Ø 20 (0.79) f8	18 (0.71)	1.6 (0.06)	58 (2.28)	4.4 + 0.2 (0.17 + 0.008)
10	5.5 (0.22)	34.5 (1.36)	Ø 25 (0.98) f8	20 (0.79)	1.6 (0.06)	72 (2.83)	4.4 + 0.2 (0.17 + 0.008)
16	8.5 (0.34)	41.5 (1.63)	Ø 35 (1.38) f8	27 (1.06)	2.2 (0.09)	85 (3.35)	5.3 + 0.2 (0.21 + 0.008)
20	10.5 (0.41)	53.6 (2.09)	Ø 40 (1.58) f8	25 (0.98)	2.2 (0.09)	98 (3.86)	5.3 + 0.2 (0.21 + 0.008)

**Ordering Code**

VJS3- [ ] - [ ] - [ ] - [ ] - [ ]

Check valve with one-way throttling, poppet type, in-line

**Valve size**

06	06
10	10
16	16
20	20

**Cracking pressure**

without spring	000
0.5 bar (7.3 PSI)	005
1.0 bar (14.5 PSI)	010
1.5 bar (21.8 PSI)	015
3.0 bar (43.5 PSI)	030
5.0 bar (72.5 PSI)	050

**No designation**

**A** zinc-coated (ZnCr-3), ISO 9227 (240 h)  
**B** zinc-coated (ZnNi), ISO 9227 (520 h)

**Surface treatment**

without surface treatment (type 02 and 03)

**Orifice diameter**

020	0.20 mm (0.008 inch)
050	0.50 mm (0.02 inch)
080	0.80 mm (0.03 inch)
100	1 mm (0.04 inch)
150	1.5 mm (0.06 inch)
200	2 mm (0.08 inch)
300	3 mm (0.12 inch)

**Installation**

<b>G1</b>	in-line, with G threads
<b>M1</b>	in-line, with metric threads
<b>S*</b>	in-line, with SAE threads
<b>02*</b>	slip-in cartridge
<b>03*</b>	slip-in cartridge

\*For sizes 06, 10, 16, 20 only

Besides the shown, commonly used valve versions other special models are available. Contact our technical support for their identification, feasibility and operating limits.