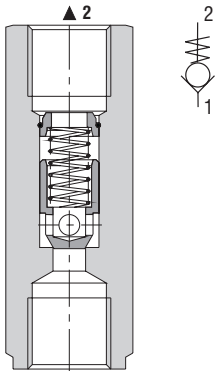


Check Valve, Poppet Type, In-Line

VJ3

Size 06, 08, 10, 16, 20, 25, 30 •  $Q_{max}$  400 l/min (106 GPM) •  $p_{max}$  320 bar (4600 PSI)

Model G1, M1, S



Technical Features

- › Poppet type check valve, guided in-line mounting or slip-in design
- › Hardened precision parts
- › Sharp-edged steel seats for dirt-tolerant performance
- › Leak-free closing, suitable for fast cycling with long life
- › 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

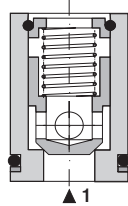
Functional Description

A hydraulic check valve in the form of an in-line or slip-in cartridge for use as a blocking or load-holding device. 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.

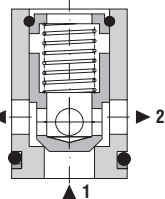
Technical Data

Valve size		06	08	10	16	20	25	30	
Maximum flow rate	l/min (GPM)	30 (7.9)	40 (10.6)	60 (15.9)	160 (42.3)	250 (66)	300 (79.3)	400 (105.7)	
Max. operating pressure	bar (PSI)	320 (4640)							
Cracking pressure	bar (PSI)	0.5 (7.25)	1.0 (14.5)	1.5 (21.8)	3.0 (43.5)	5.0 (72.5)			
Fluid temperature range (NBR)	°C (°F)	-30 ... +100 (-22 ... +212)							
Mass - model G1	kg (lbs)	0.11 (0.24)	0.2 (0.04)	0.34 (0.75)	0.52 (1.15)	0.95 (2.09)	1.95 (4.30)	2.35 (5.18)	
- models M1, S		-	-	-	-	-	-	-	
- 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								

Model 02

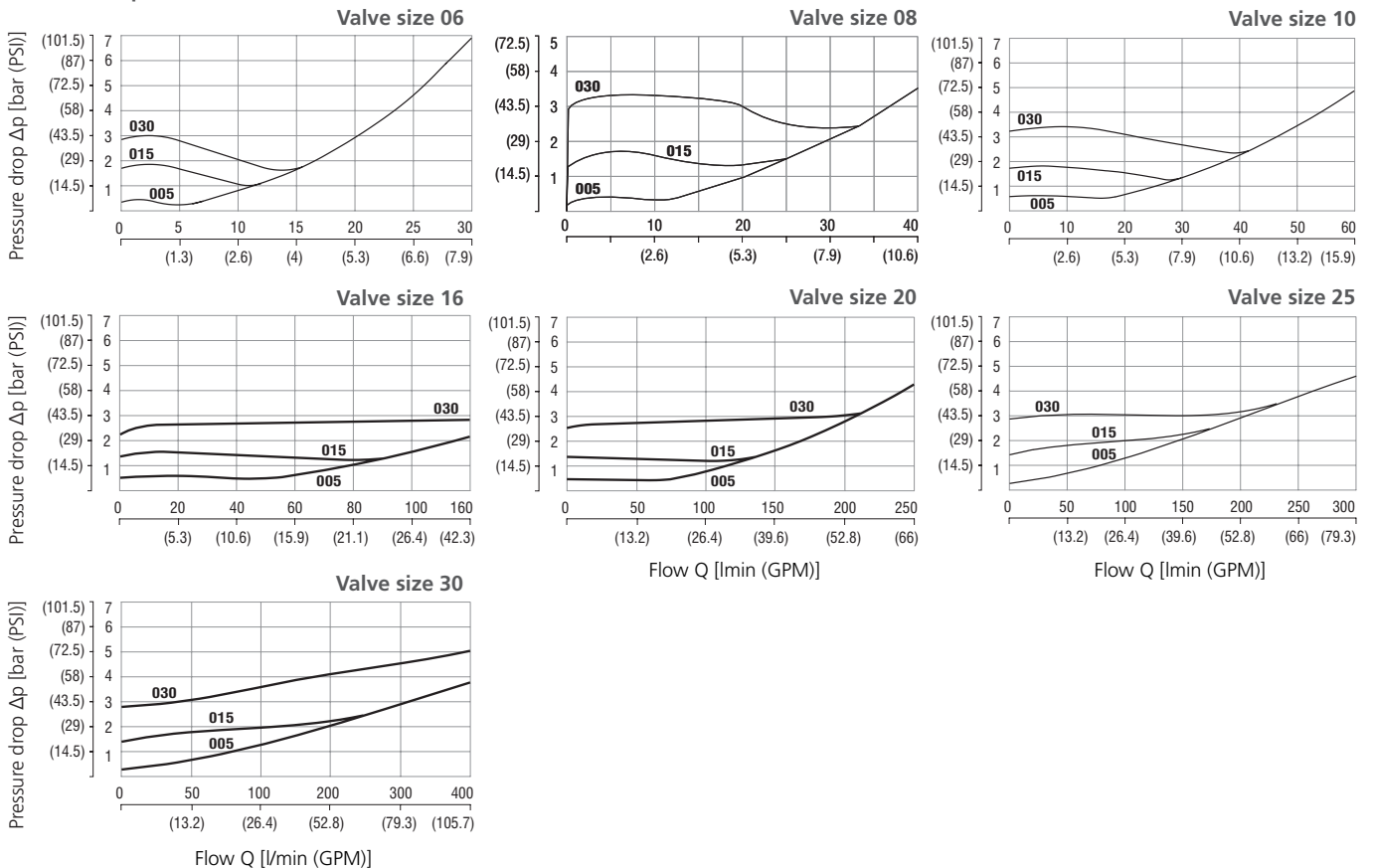


Model 03



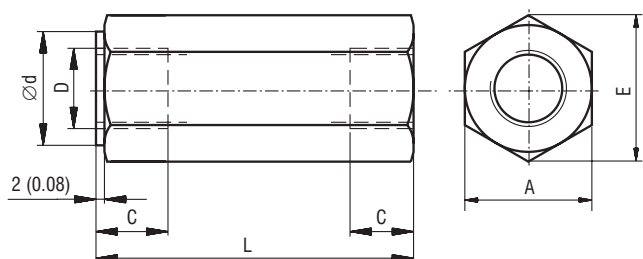
Characteristics measured at  $v = 32 \text{ mm}^2/\text{s}$  (156 SUS)

Pressure drop related to flow rate

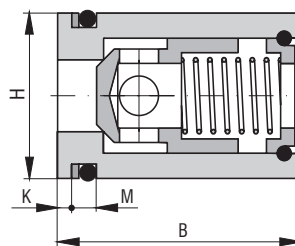


### Dimensions in millimeters (inches)

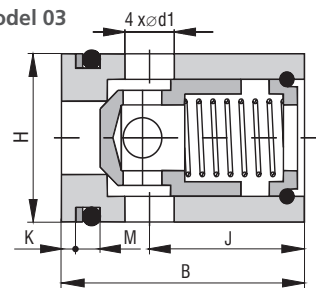
#### Models G1, M1, S



#### Model 02



#### Model 03

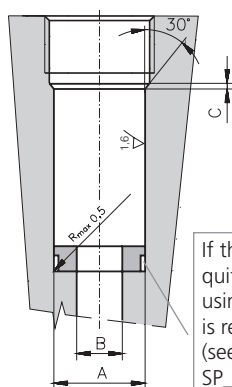


Size	A	B	C	D			Ø d
				G1	M1	S	
06	19 (0.75)	27 - 0.2 (1.06 - 0.008)	12 (0.47)	G 1/4	M14x1.5	SAE-6, 9/16-18	19 (0.75)
08	24 (0.95)	-	12 (0.47)	G 3/8	-	-	24 (0.94)
10	30 (1.18)	32 - 0.2 (1.26 - 0.008)	14 (0.55)	G 1/2	M18x1.5	SAE-8, 3/4-16	30 (1.18)
16	36 (1.42)	45 - 0.2 (1.77 - 0.008)	16 (0.63)	G 3/4	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)
25	60 (2.36)	-	20 (0.79)	G1 1/4	-	-	60 (2.36)
30	65 (2.56)	-	22 (0.87)	G1 1/2	-	-	65 (2.56)

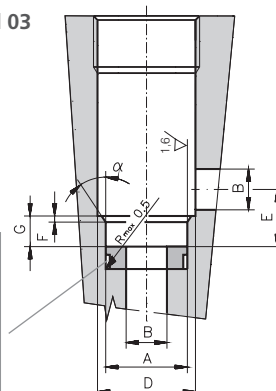
Size	Ø d1	E	H	J	K	L	M
06	3.5 (0.14)	22 (0.87)	Ø 20 (0.79 f8)	18 (0.71)	1.6 (0.06)	58 (2.28)	4.4 + 0.2 (0.17 + 0.008)
08	-	27.7 (1.09)	-	-	-	58 (2.28)	-
10	5.5 (0.22)	34.5 (1.36)	Ø 25 (0.98 f8)	20 (0.79)	1.6 (0.06)	72 (2.83)	4.4 + 0.2 (0.17 + 0.008)
16	8.5 (0.34)	41.5 (1.63)	Ø 35 (1.38 f8)	27 (1.06)	2.2 (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)
25	-	69 (2.72)	-	-	-	120 (4.72)	-
30	-	75 (2.95)	-	-	-	132 (5.20)	-

### Cavity in millimeters (inches)

#### Model 02



#### Model 03



If the hole cannot be reamed quite to the bottom, using a distance ring is recommended. (see Datasheet Spare parts SP\_8010)

D <sub>n</sub>	06	10	16	20
A	Ø 20 H8	Ø 25 H8	Ø 35 H8	Ø 40 H8
B	Ø 6	Ø 10	Ø 16	Ø 20
C	2	2	2	2
D*	Ø 26	Ø 32	Ø 44	Ø 48
E	10.5	14	22	25
F	1	1.5	2	2
G	7-0.3	8+0.2	13+0.2	14+0.2
α	20°	30°	30°	30°

\*minimum diameter recommended

### Ordering Code

VJ3 - [ ] - [ ] - [ ] - [ ]

**Check valve, poppet type, in-line**

**Valve size**

06	06
08	08
10	10
16	16
20	20
25	25
30	30

**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**

**Surface treatment**

without surface treatment (type 02 and 03)

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

**B** zinc-coated (ZnNi), ISO 9227 (520 h)

**Interface**

in-line mounting - with G threads with metric threads

**G1** in-line mounting - with G threads with metric threads

**M1** in-line mounting - with G threads with metric threads

**S\*** with SAE threads

**02\*** slip-in cartridge

**03\*** slip-in cartridge

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

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