

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

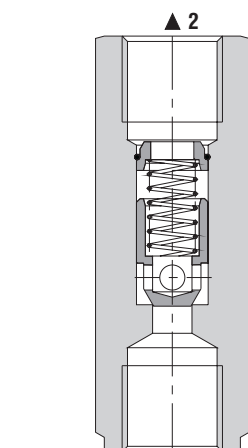
Technical Features

- › 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 valve is zinc-coated for 240 h protection acc. to ISO 9227

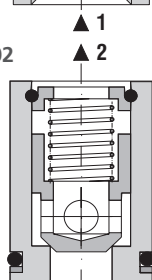
Functional Description

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.

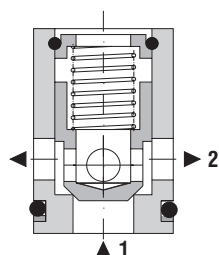
Symbol



Model 02



Model 03



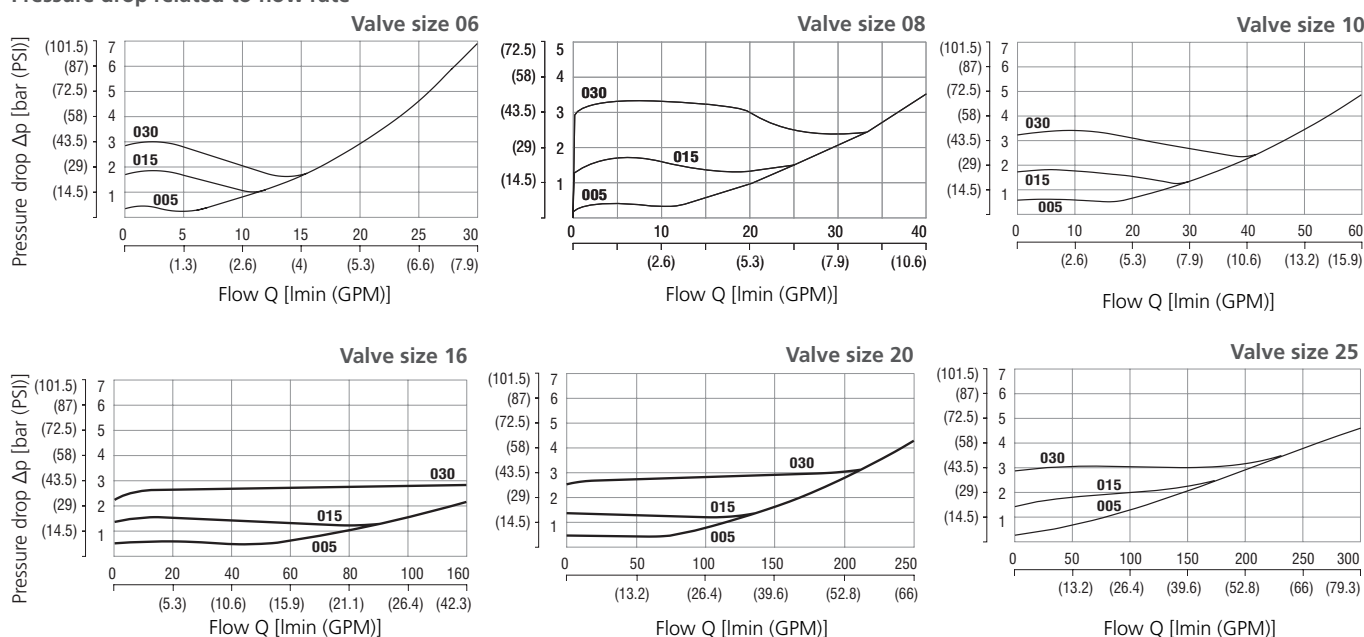
Technical Data

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)	-	-

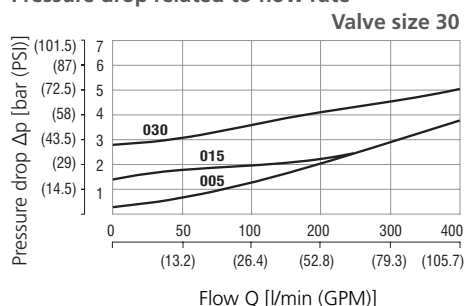
	Datasheet	Type
General information	GI_0060	Products and operating conditions
Cavity details	SMT_0019	
Spare parts	SP_8010	

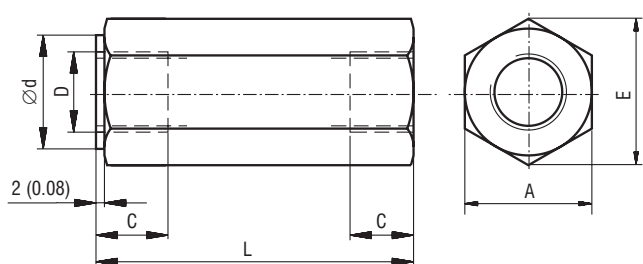
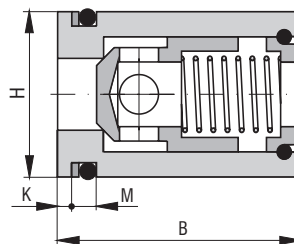
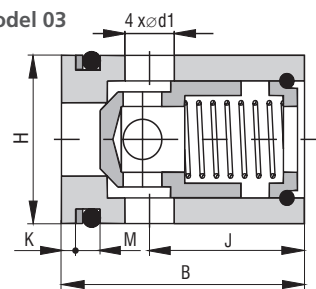
Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

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)
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)	-

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

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

G1
M1
S*
02*
03*
Interface
 in-line mounting - with G threads
 with metric threads
 with SAE threads
 slip-in cartridge
 slip-in cartridge

*For sizes 06, 10, 16, 20 only

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