

Part number:

009-10139

HYDROMA

HYDRAULICKÉ SYSTÉMY

**HIDROMA
SISTEMS**

UKŁADY HYDRAULICZNE

HYDROMA

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

CHECK VALVES

VJ2

**HA 5001
11/98**

Size 06, 10, 16, 20

...4641 psi (320 bar)

..66 US gpm
(250 l/min)

Replaces
HA 5001 1/94

- Three mounting styles:
 - for in-line mounting
 - straight valve cartridge
 - right angled valve cartridge

- Four sizes

- Poppet design

- Leakfree closure in one direction

- Three cracking pressures



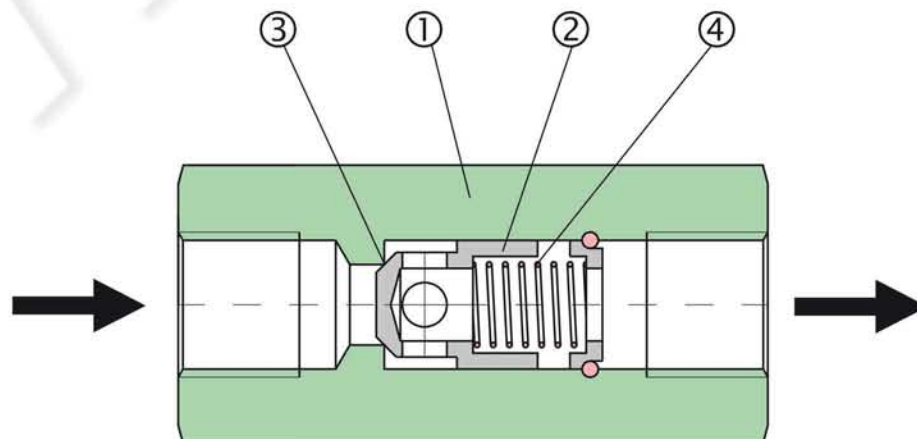
Functional Description

The check valve is used to allow flow in one direction and prevent flow in the other. The poppet design guarantees leakfree closure.

The seat (3) is created directly in the housing (1) and the poppet (2) is pushed onto the seat by the compression

spring (4). The cracking pressure depends on the spring selected and the pressurised poppet surface area. Three cracking pressures are available.

The basic surface treatment of the valve housing is zinc coated.



Ordering Code

VJ2 - - -

Check valve

Nominal size	
06	06
10	10
16	16
20	20

Model	
M1	For in-line mounting with metric threads
G1	For in-line mounting with BSP threads
N	For in-line mounting with NPT threads
S	For in-line mounting with SAE threads
02	Straight valve cartridge
03	Straight valve cartridge

Cracking pressure in psi (bar)	
005	7 (0.5)
015	22 (1.5)
030	44 (3.0)

Technical Data

Nominal size	mm	06	10	16	20
Maximum flow rate	US gpm (l/min)	7.9 (30)	15.9 (60)	42.3 (160)	66 (250)
Maximum pressure	psi (bar)	4641 (320)			
Cracking pressure	psi (bar)	7.3 (0.5)	21.8 (1.5)	43.5 (3.0)	
Hydraulic fluid	Hydraulic oils of power classes HM, HV to CETOP RP 91 H in viscosity classes ISO VG 32, 46 and 68				
Fluid temperature range - models M1, G1, N, S - models 02, 03	°F (°C)	-40 ... +176 (-40 ... +80) -22 ... +176 (-30 ... +80)			
Ambient temperature range	°F (°C)	-40 ... +131 (-40 ... +55)			
Viscosity range	SUS (mm ² /s)	62 ... 1840 (10 ... 400)			
Maximum degree of fluid contamination	Class 18/15 according to ISO 4406. Therefore we recommend a filter with a retention rate $\beta_{10} \geq 75$.				
Weight - models M1, G1, N, S - models 02, 03	lb (kg)	0.25 (0.11) 0.002 (0.05)	0.8 (0.34) 0.004 (0.09)	1.2 (0.52) 0.009 (0.22)	2.1 (0.95) 0.010 (0.26)
Mounting position	optional				

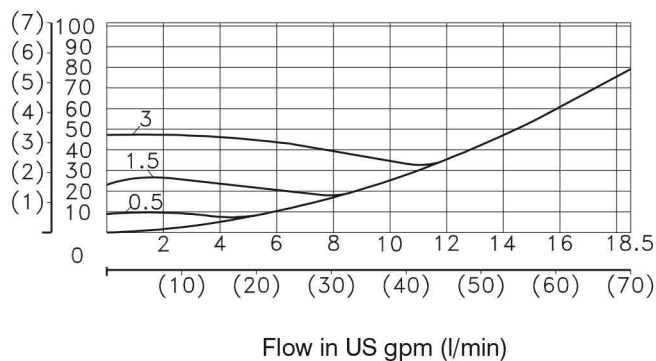
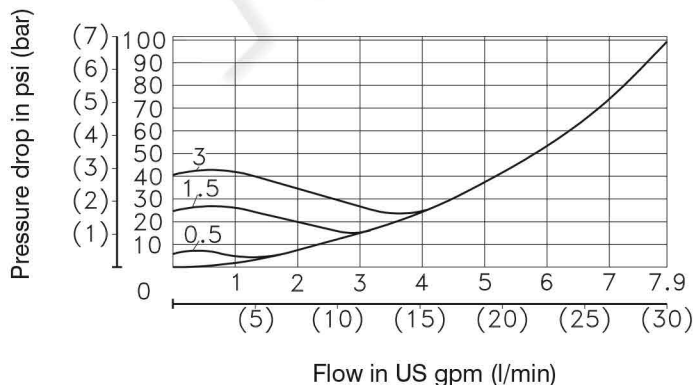
Performance Curves

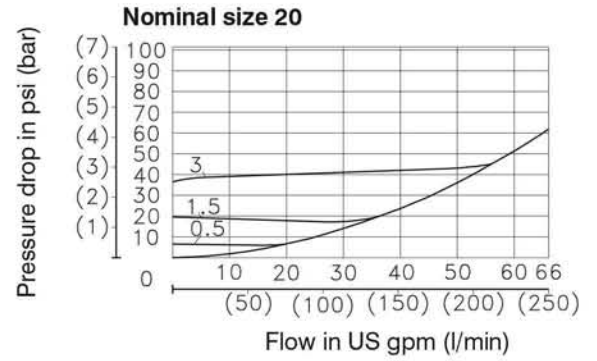
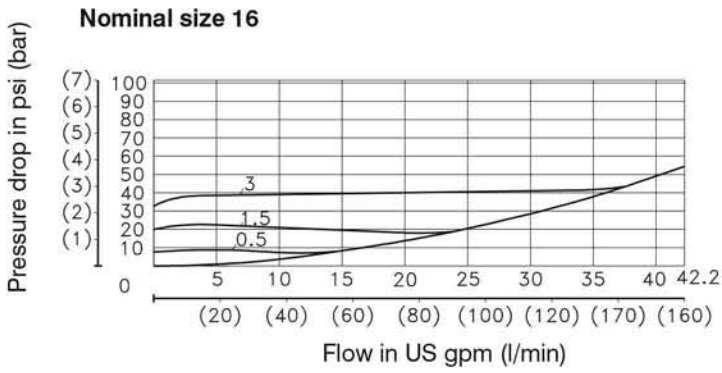
Measured at $v = 166 \text{ SUS (} 35 \text{ mm}^2/\text{s)}$ and $t = 104^\circ\text{F (} 40^\circ\text{C)}$

Pressure drop dependent upon flow

Nominal size 06

Nominal size 10

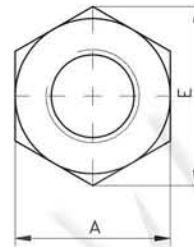
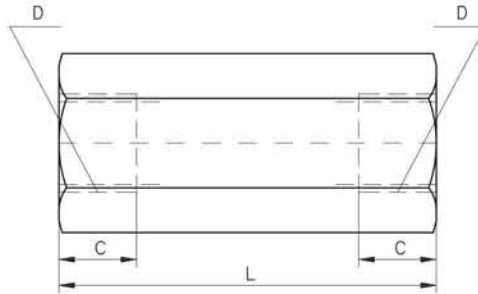




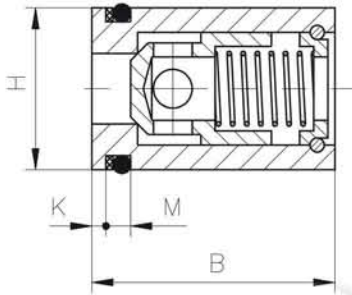
Valve Dimensions

Dimensions in inches and millimetres (in brackets)

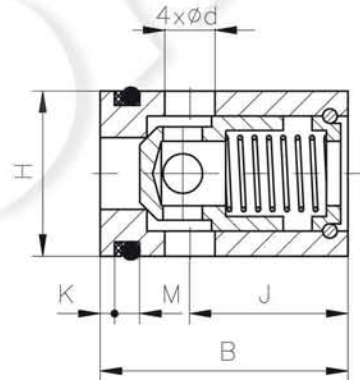
Models M1, G1, N, S



Model 02



Model 03

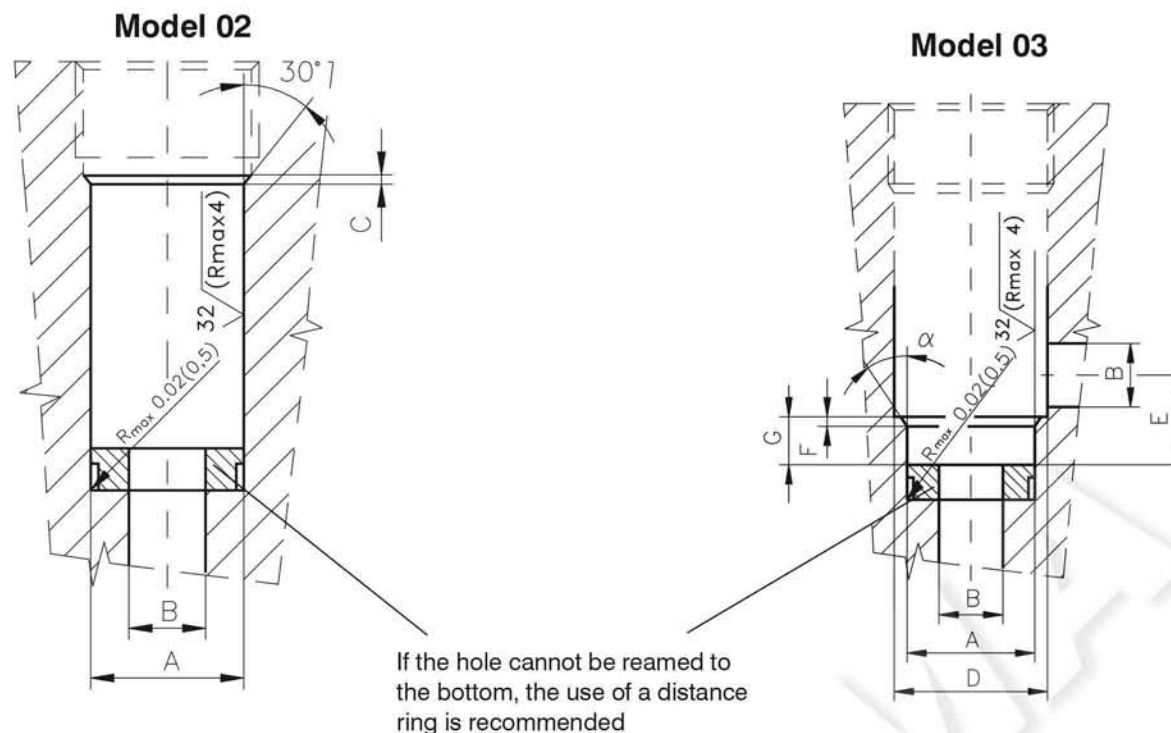


Size	A	B	C		D				d
			M1	G1, N	M1	G1	N	S	
06	0.748 (19)	1.063-0.008 (27 - 0.2)	0.472 (12)	0.472 (12)	M14x1.5	BSP 1/4	NPT 1/4	-	0.138 (3.5)
10	1.181 (30)	1.260-0.008 (32 - 0.2)	0.591 (15)	0.551 (14)	M18x1.5	BSP 1/2	NPT 1/2	SAE-8;3/4"-16	0.217 (5.5)
16	1.417 (36)	1.772-0.008 (45 - 0.2)	0.807 (20.5)	0.630 (16)	M27x2	BSP 3/4	NPT 3/4	SAE-12;11/16"-12	0.335 (8.5)
20	1.811 (46)	1.772-0.008 (45 - 0.2)	0.807 (20.5)	0.709 (18)	M33x2	BSP 1	NPT 1	SAE-16;15/16"-12	0.413 (10.5)

Size	E	H	J	K	L	M	O-Ring	Thrust ring
06	0.866 (22)	∅ 0.787 ^{-0.0008} _{-0.0021} (20 f8)	0.709 (18)	0.063 (1.6)	2.441 (62)	0.173 + 0.0079 (4.4 + 0.2)	15.08x2.62	BBP 80 B113 - N9 14X66x19.02x1.14
10	1.358 (34.5)	∅ 0.984 ^{-0.0008} _{-0.0021} (25 f8)	0.787 (20)	0.063 (1.6)	2.874 (73)	0.173 + 0.0079 (4.4 + 0.2)	20x2.65	M8 - 116 19.43x23.79x1.14
16	1.634 (41.5)	∅ 1.378 ^{-0.0025} _{-0.0010} (35 f8)	1.063 (27)	0.087 (2.2)	3.819 (97)	0.209 + 0.0079 (5.3 + 0.2)	28x3.55	S8 - 216 28.98x34.98x1.02
20	2.087 (53)	∅ 1.575 ^{-0.0025} _{-0.0010} (40 f8)	0.984 (25)	0.087 (2.2)	4.095 (104)	0.209 + 0.0079 (5.3 + 0.2)	Shambak Rings S 55382 0400 A 101-A	

Installation Cavity

(length according to distance ring)



Size	A	B	C	D*	E	F	G	α
06	$\varnothing 0.787 + 0.0013$ (20 H8)	$\varnothing 0.236$ (06)	0.079 (2)	$\varnothing 1.024$ (26)	0.413 (10.5)	0.039 (1)	0.276-0.0118 (7-0.3)	20°
10	$\varnothing 0.984 + 0.0013$ (25 H8)	$\varnothing 0.394$ (10)	0.079 (2)	$\varnothing 1.260$ (32)	0.551 (14)	0.059 (1.5)	0.315+0.0079 (8+0.2)	30°
16	$\varnothing 1.378 + 0.0015$ (35 H8)	$\varnothing 0.630$ (16)	0.079 (2)	$\varnothing 1.732$ (44)	0.866 (22)	0.079 (2)	0.512+0.0079 (13+0.2)	30°
20	$\varnothing 1.575 + 0.0015$ (40 H8)	$\varnothing 0.787$ (20)	0.079 (2)	$\varnothing 1.890$ (48)	0.984 (25)	0.079 (2)	0.551+0.0079 (14+0.2)	30°

* minimum diameter recommended

Caution!

- The packing foil is recyclable.
- The technical information regarding the product presented in this catalogue is for descriptive purposes only. It should not be construed in any case as a guaranteed representation of the product properties in the sense of the law.