

General Description

Series C4V hydraulically pilot operated check valves allow free flow from A to B. The counter-flow direction is blocked.

When pressure is applied to control port X, the ring chamber flow from B to A is released.

Up to four different pilot control ratios are available (see Ordering Information).

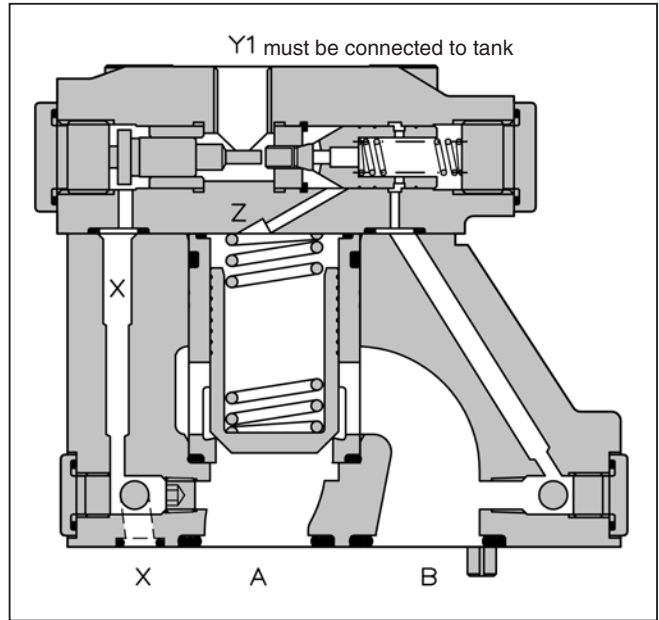
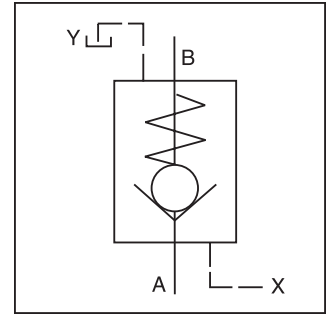
Check valves allow free flow from A to B. The counter direction is blocked. The C4V series are equipped with a leak-free seat type cartridge.

Operation

When no pressure is applied to the X-port, the flow from B to A is blocked, because the pressure in B is also in effect on top of the poppet.

Pressurizing the X port relieves the area on top of the poppet to the drain port and allows flow from B to A.

The seat design of the C4V valve series provides leak-free separation of port A and B in the closed position.



E

Features

- High flow, low pressure drop design.
- Minimal internal leakage.

Ordering Information

C4V	□	—	5	9	□	□	B	□	□																					
Pilot Operated Check Valve	Size		Maximum Pressure 350 Bar (5075 PSI)	Y1 Port G1/4"	Opening Ratio	Approximate Cracking Pressure	Design Series	Seal	Options Check with Factory																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>03</td> <td>NG10</td> </tr> <tr> <td>06</td> <td>NG25</td> </tr> <tr> <td>10</td> <td>NG32</td> </tr> </tbody> </table>		Code	Description	03	NG10	06	NG25	10	NG32	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1:1</td> </tr> <tr> <td>3</td> <td>3:1</td> </tr> <tr> <td>8</td> <td>8:1</td> </tr> <tr> <td>9</td> <td>10:1</td> </tr> </tbody> </table>			Code	Description	1	1:1	3	3:1	8	8:1	9	10:1	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Nitrile</td> </tr> <tr> <td>5</td> <td>Fluorocarbon</td> </tr> </tbody> </table>		Code	Description	1	Nitrile	5	Fluorocarbon
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Weight:

C4V03	2.8 kg (6.2 lbs)
C4V06	4.6 kg (10.1 lbs.)
C4V10	6.1 kg (13.5 lbs.)

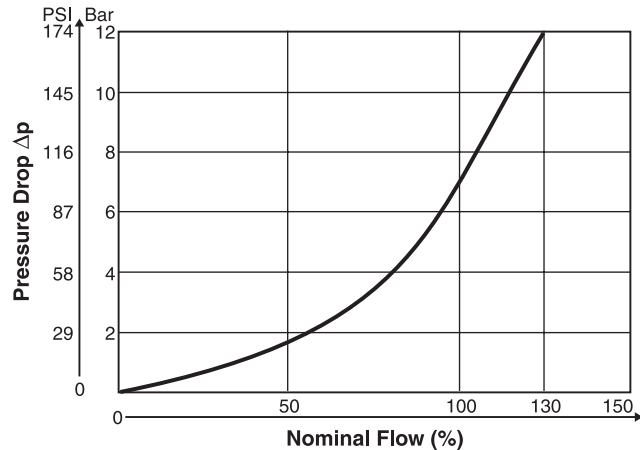
Code	Description	Flow A to B	Flow A to B
		C4V03	C4V06 / C4V10
2	1.0 Bar (14.5 PSI)	1.0 Bar (14.5 PSI)	1.0 Bar (14.5 PSI)
4	4.0 Bar (58.0 PSI)	3.5 Bar (50.8 PSI)	3.5 Bar (50.8 PSI)
6	2.0 Bar (29.0 PSI)	2.2 Bar (31.9 PSI)	2.2 Bar (31.9 PSI)
		Flow B to A	Flow B to A
		C4V03	C4V06 / C4V10
2	1.5 Bar (21.8 PSI)	1.7 Bar (24.7 PSI)	1.7 Bar (24.7 PSI)
4	5.5 Bar (79.8 PSI)	6.0 Bar (87.0 PSI)	6.0 Bar (87.0 PSI)
6	3.0 Bar (43.5 PSI)	3.8 Bar (55.1 PSI)	3.8 Bar (55.1 PSI)

Specifications

General				
Size		NG10	NG25	NG32
Subplate Mounting	ISO 5781			
Mounting Position	Unrestricted			
Ambient Temperature Range	-20°C to +80°C (-4°F to +176°F)			
Hydraulic				
Maximum Operating Pressure	350 Bar (5075 PSI)			
Nominal Flow	150 LPM (39.7 GPM)	270 LPM (71.4 GPM)	450 LPM (119.0 GPM)	
Fluid	Hydraulic oil to DIN 51524			
Viscosity	Recommended Permitted	30 to 50 cSt / mm ² /s (139 to 232 SSU) 20 to 380 cSt / mm ² /s (93 to 1761 SSU)		
Fluid Temperature	Recommended Permitted	+30°C to +50°C (86°F to +122°F) -20°C to +70°C (-4°F to +158°F)		
Filtration	ISO Class 4406 (1999) 18/16/13 (meet NAS 1638:7)			



Performance Curve

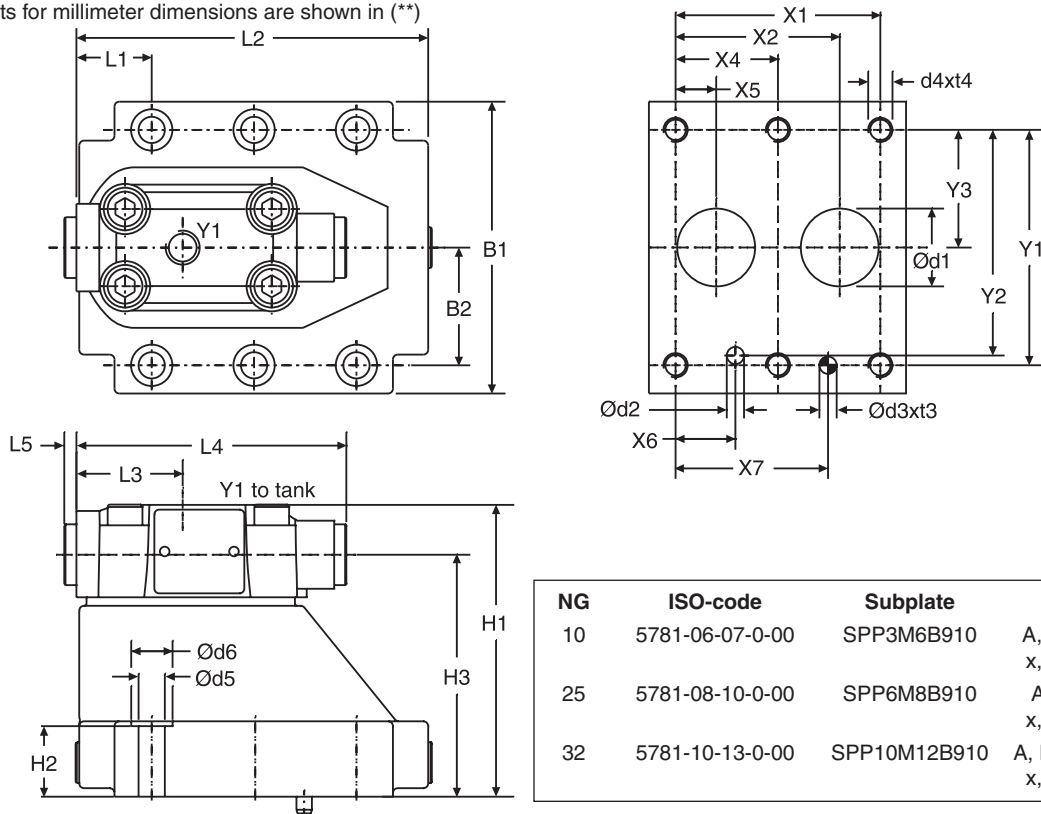


Dimensions

Check Valves

Series C4V (Pilot Operated)

Inch equivalents for millimeter dimensions are shown in (**)



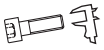

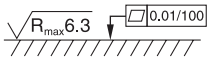
NG	ISO-code	Subplate	Size
10	5781-06-07-0-00	SPP3M6B910	A, B = 3/4" BSPP x, y = 1/4" BSPP
25	5781-08-10-0-00	SPP6M8B910	A, B = 1" BSPP x, y = 1/4" BSPP
32	5781-10-13-0-00	SPP10M12B910	A, B = 1 1/2" BSPP x, y = 1/4" BSPP

NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	5781-06-07-0-00	42.9 (1.69)	35.8 (1.41)	-	-	7.2 (0.28)	21.5 (0.85)	31.8 (1.25)	66.7 (2.63)	58.8 (2.31)	33.4 (1.31)	-	-	-
25	5781-08-10-0-00	60.3 (2.37)	49.2 (1.94)	-	-	11.1 (0.44)	20.6 (0.81)	44.5 (1.75)	79.4 (3.13)	73.0 (2.87)	39.7 (1.56)	-	-	-
32	5781-10-13-0-00	84.2 (3.31)	67.5 (2.66)	-	42.1 (1.66)	16.7 (0.66)	24.6 (0.97)	62.7 (2.47)	96.8 (3.81)	92.8 (3.65)	48.4 (1.91)	-	-	-

Tolerance for all dimensions ±0.2 mm (0.01 inches)

NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	5781-06-07-0-00	87.3 (3.44)	33.4 (1.31)	83.0 (3.27)	21.0 (0.83)	62.5 (2.46)	-	-	-	29.4 (1.16)	95.2 (3.75)	43.7 (1.72)	111.0 (4.37)	5.0 (0.20)	-
25	5781-08-10-0-00	105 (4.13)	39.7 (1.56)	109.5 (4.31)	29.0 (1.14)	89.0 (3.50)	-	-	-	35.1 (1.38)	127.2 (5.01)	43.7 (1.72)	111.0 (4.37)	5.0 (0.20)	-
32	5781-10-13-0-00	120 (4.72)	48.4 (1.91)	120.0 (4.72)	29.0 (1.14)	99.5 (3.92)	-	-	-	31.0 (1.22)	144.7 (5.70)	43.7 (1.72)	111.0 (4.37)	5.0 (0.20)	-

NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6
10	5781-06-07-0-00	15.0 (0.59)	7.0 (0.28)	7.1 (0.28)	8.0 (0.31)	M10	16.0 (0.63)	10.8 (0.43)	17.0 (0.67)
25	5781-08-10-0-00	23.4 (0.92)	7.1 (0.28)	7.1 (0.28)	8.0 (0.31)	M10	18.0 (0.71)	10.8 (0.43)	17.0 (0.67)
32	5781-10-13-0-00	32.0 (1.26)	7.1 (0.28)	7.1 (0.28)	8.0 (0.31)	M10	20.0 (0.79)	10.8 (0.43)	17.0 (0.67)

NG	ISO-code	Bolt Kit			Seal Kit		Surface finish
					Nitrile	Fluorocarbon	
10	5781-06-07-0-00	BK505	4xM10 x 35 DIN 912 12.9	68 Nm (50.2 lb-ft) ±15%	S16-39362-0	S16-39362-5	
25	5781-08-10-0-00	BK485	4xM10 x 45 DIN 912 12.9	68 Nm (50.2 lb-ft) ±15%	S16-39364-0	S16-39364-5	
32	5781-10-13-0-00	BK506	6xM10 x 45 DIN 912 12.9	68 Nm (50.2 lb-ft) ±15%	S16-39366-0	SS16-39366-5	

C4V-PO.indd, dd

