



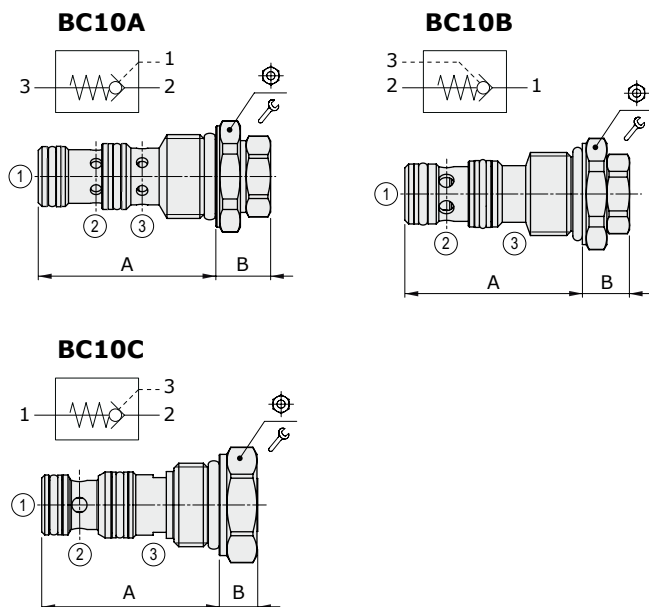
## BC... type pilot operated check valves - 3 way

- Poppet type
- From SAE08 to SAE10 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

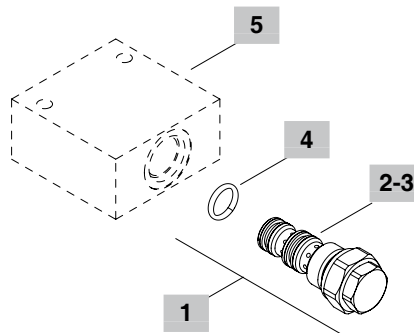
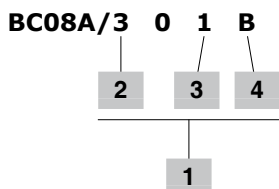
	<b>BC08A</b>	<b>BC10A-B</b>	<b>BC10C</b>	<b>BC12A-B</b>	<b>BC16A-B</b>
Nominal flow	15 l/min (4 US gpm)	30 l/min (8 US gpm)	60 l/min (16 US gpm)	50 l/min (13 US gpm)	100 l/min (26 US gpm)
Max. pressure	350 bar (5100 psi)				
Oil leakage at 100 bar (1450 psi)	0.25 cm <sup>3</sup> /min (0.015 in <sup>3</sup> /min)	0.25 cm <sup>3</sup> /min (0.015 in <sup>3</sup> /min)	0.25 cm <sup>3</sup> /min (0.015 in <sup>3</sup> /min)	0.25 cm <sup>3</sup> /min (0.015 in <sup>3</sup> /min)	0.25 cm <sup>3</sup> /min (0.015 in <sup>3</sup> /min)
Fluid	mineral based oil				
Viscosity	10-200 cSt				
Max level of contamination	20/18/14 ISO4406				
Fluid temperature	with NBR seals with FPM seals		from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)		
Environmental temp. for working conditions	from -20°C (-4°F) to 50°C (122°F)				
Cavity	SAE 08/3	SAE 10/3	SAE 10/3	SAE 12/3	SAE 16/3
Weight	0.080 kg (0.18 lb)	0.100 kg (0.22 lb)	0.111 kg (0.24 lb)	0.230 kg (0.51 lb)	0.440 kg (0.97 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.



Valve type	A		B				Nm	lbft
	mm	in	mm	in				
<b>BC..A</b>	SAE 08/3	40.8	1.61	15.5	0.61	24	30	22
	SAE 10/3	47	1.85	11	0.43	27	50	36
	SAE 12/3	73.5	2.89	14	0.55	32	80	59
	SAE 16/3	75.4	2.97	25	0.98	41	100	73
<b>BC..B</b>	SAE 10/3	47	1.85	6.5	0.25	27	50	36
	SAE 12/3	73.5	2.89	14	0.55	32	80	59
<b>BC..C</b>	SAE 16/3	99	3.90	24	0.94	41	100	73
	SAE 10/3	47	1.85	10.2	0.40	27	50	36

### Ordering codes and description composition



#### 1 Cartridges

TYPE	CODE	DESCRIPTION
<b>SAE cavity 08/3</b>		
BC08A/301B	OBC08002000	Pilot ratio 1:2.5 Opening press. 2 to 3 = 5 bar (72.5 psi)
<b>SAE cavity 10/3</b>		
BC10A/301B	OBC10002001	Pilot ratio 1:3 Opening press. 2 to 3 = 5 bar (72.5 psi)
BC10B/301B	OBC10002008	Pilot ratio 1:2 Opening press. 1 to 2 = 5 bar (72.5 psi)
BC10C/401B	OBC10002011	Pilot ratio 1:4 Opening press. 2 to 1 = 5 bar (72.5 psi)
<b>SAE cavity 12/3</b>		
BC12A/301B	OBC12002000	Pilot ratio 1:3 Opening press. 2 to 3 = 5 bar (72.5 psi)
BC12B/301B	OBC12002005	Pilot ratio 1:3 Opening press. 1 to 2 = 5 bar (72.5 psi)
<b>SAE cavity 16/3</b>		
BC16A/301B	OBC16002000	Pilot ratio 1:2.5 Opening press. 2 to 3 = 5 bar (72.5 psi)
BC16B/301B	OBC16002004	Pilot ratio 1:2.5 Opening press. 1 to 2 = 5 bar (72.5 psi)

#### 2 Pilot ratio

TYPE	DESCRIPTION
<b>For BC..A</b>	
BC08A/3	1:2.5
BC10A/3	1:3
BC12A/3	1:3
BC16A/3	1:2.5
<b>For BC..B</b>	
BC10B/3	1:2
BC12B/3	1:3
BC16B/3	1:2.5
<b>For BC..C</b>	
BC10B/3	1:4

#### 3 Opening pressure from 2 to 3

TYPE	DESCRIPTION
<b>For BC..A from 2 to 3</b>	
1	5 bar (72.5 psi) with sealed piston
2	2.5 bar (36.2 psi) without sealed piston
<b>For BC..B from 1 to 2</b>	
1	5 bar (72.5 psi) with sealed piston
<b>For BC..C from 2 to 1</b>	
1	5 bar (72.5 psi) with seal

#### 4 Seals

TYPE	DESCRIPTION
B	<b>NBR (Buna)</b> Std configuration without addition
V	For valve with <b>FPM (Viton)</b> o-ring seals, contact Sales Dept.

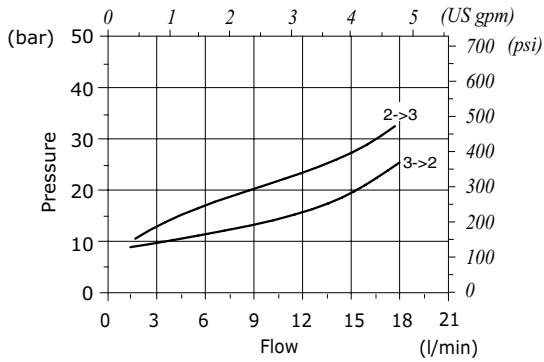
#### 5 Valve body

TYPE	CODE	DESCRIPTION
<b>SAE 08/3-SAE8</b>	3CC0830K11	Aluminium body for cavity 08 valve, SAE8 std thread
<b>SAE 10/3-SAE8</b>	3CC1030K11	Aluminium body for cavity 10 valve, SAE8 std thread
<b>SAE 12/3-SAE10</b>	3CC1230L11	Aluminium body for cavity 12 valve, SAE10 std thread
<b>SAE 16/3-SAE12</b>	3CC1630M11	Aluminium body for cavity 16 valve, SAE12 std thread

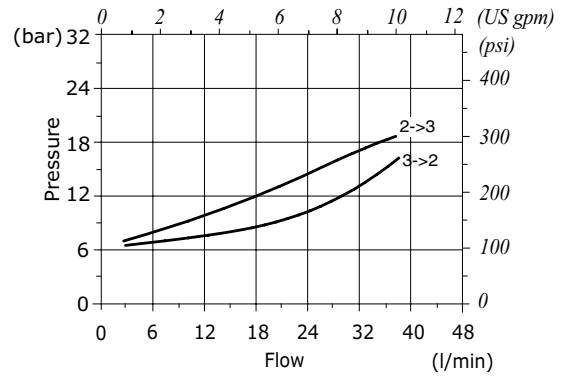
Note: aluminium body can stand up to 210 bar (3050 psi)  
For steel bodies or different threading see from page 217

**Rating diagrams**

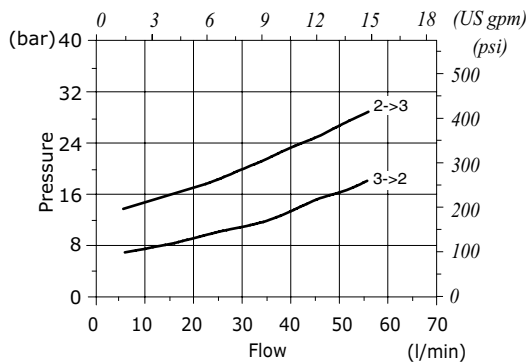
**BC08A pressure drop vs flow**



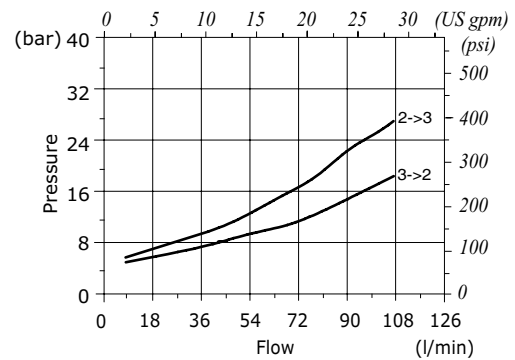
**BC10A pressure drop vs flow**



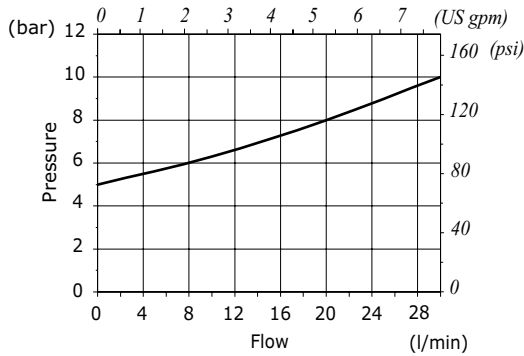
**BC12A pressure drop vs flow**



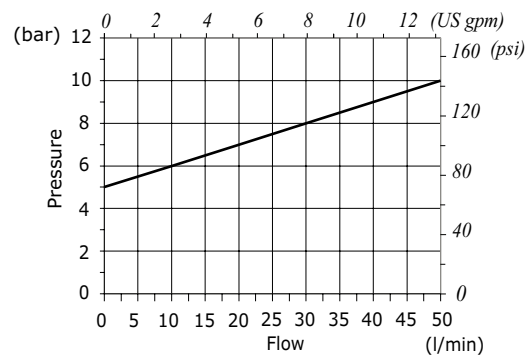
**BC16A pressure drop vs flow**



**BC10B pressure drop vs flow**

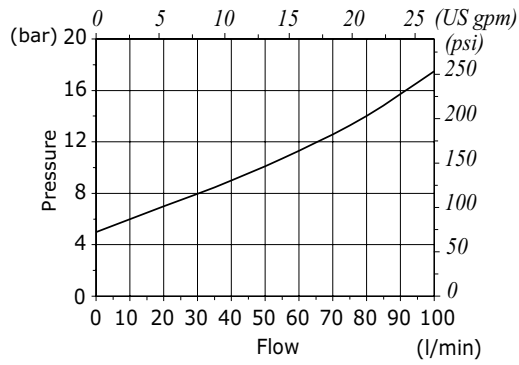


**BC12B pressure drop vs flow**



### Rating diagrams

**BC16B pressure drop vs flow**



**BC10C pressure drop vs flow**

