



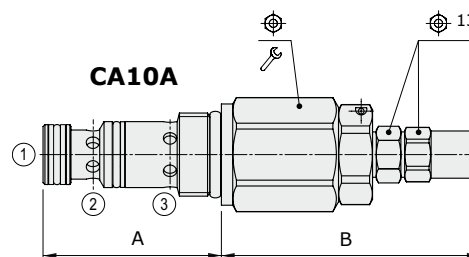
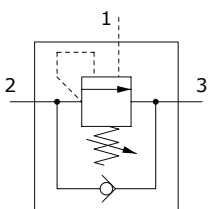
## CA..A type counterbalance valves - 3 way

- For open center
- Line mounting
- From SAE10 to SAE16 cavities

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

	CA10A	CA12A	CA16A
Nominal flow	30 l/min (7.9 US gpm)	60 l/min (16 US gpm)	90 l/min (23.8 US gpm)
Max. pressure	350 bar (5100 psi)		
Oil leakage	80% of max. pressure setting	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 10/3	SAE 12/3	SAE 16/3
Weight	0.280 kg (0.62 lb)	0.280 kg (0.62 lb)	0.670 kg (1.48 lb)

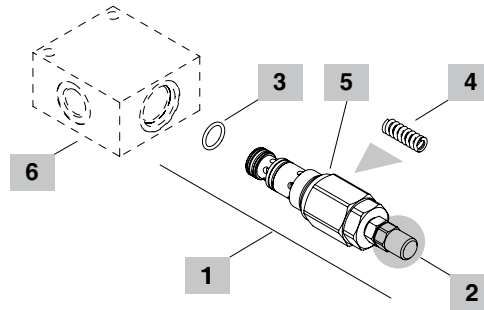
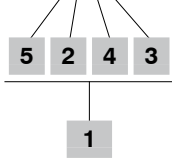
NOTE - For different conditions, please contact Walvoil Sales Dpt.



Valve type	A		B				Nm	lbft
	mm	in	mm	in				
CA10A/	4S	47.2	1.86	68.5	2.70	27	50	37
	4W	47.2	1.86	68.5	2.70	27	50	37
CA12A/	4S	73.5	2.89	62.5	2.46	32	80	59
	4W	73.5	2.89	62.5	2.46	32	80	59
CA16A/	4S	75	2.95	69.9	2.74	41	100	74
	4W	75	2.95	69.9	2.74	41	100	74

Ordering codes and description composition

CA10A/4S2B



**1 Cartridges**

TYPE	CODE	DESCRIPTION
<b>SAE cavity 10/3</b>		
CA10A/4S2B	OCA10002007	Screw type adjustment, pilot ratio 1:4 pressure range <b>2</b>
<b>SAE cavity 12/3</b>		
CA12A/4S2B	OCA12002000	Screw type adjustment, pilot ratio 1:4 pressure range <b>2</b>
<b>SAE cavity 16/3</b>		
CA16A/4S2B	OCA16002001	Screw type adjustment, pilot ratio 1:4 pressure range <b>2</b>

**2 Adjustments**

TYPE	DESCRIPTION
<b>S</b>	Screw
<b>W</b>	Copped adjustment

**3 Seals**

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

**4 Pressure range**

Standard setting is referred to 5 l/min (1.32 US gpm) flow

TYPE	CODE	DESCRIPTION
<b>For CA10A valve</b>		
<b>1</b>	3ML1092502	Setting range 50-220 bar (725-3200 psi) red band
<b>2</b>	3ML1092300	Setting range 180-350 bar (2600-5100 psi) red band
<b>3</b>	3ML1102800	Setting range 300-700 bar (4350-10150 psi) red band
<b>For CA12A valve</b>		
<b>1</b>	3ML1133201	Setting range 50-220 bar (725-3200 psi) blue band
<b>2</b>	3ML1133200	Setting range 180-350 bar (2600-5100 psi) red band
<b>3</b>	3ML1133500	Setting range 300-700 bar (4350-10150 psi) yellow band
<b>For CA16A valve</b>		
<b>1</b>	3ML1164000	Setting range 50-220 bar (725-3200 psi) blue band
<b>2</b>	3ML1164001	Setting range 180-350 bar (2600-5100 psi) red band
<b>3</b>	3ML1164002	Setting range 300-700 bar (4350-10150 psi) yellow band

**5 Pilot ratio**

TYPE	DESCRIPTION
<b>4</b>	1:4

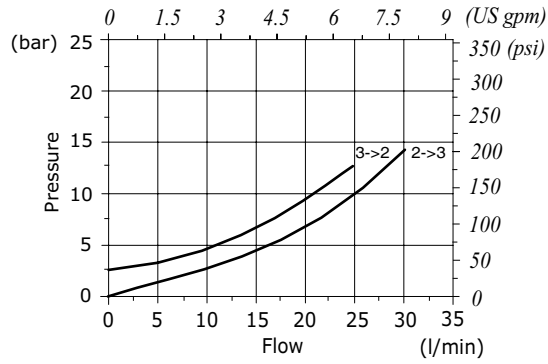
**6 Valve body**

TYPE	CODE	DESCRIPTION
<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

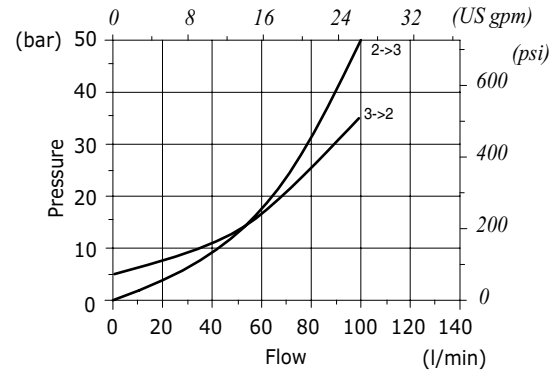
Note: aluminium body can stand up to 210 bar (3050 psi)  
For steel bodies or different threading see from page 217

**Rating diagrams**

**CA10A pressure drop vs flow**



**CA12A pressure drop vs flow**



**CA16A pressure drop vs flow**

