



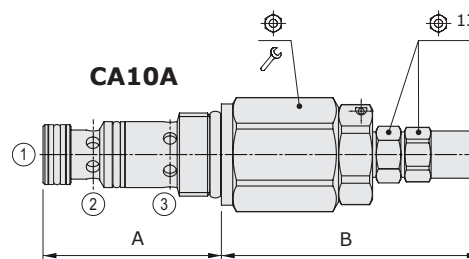
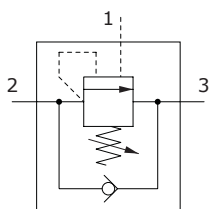
CA..A type counterbalance valves - 3 way

- 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 ³ /min (0.015 in ³ /min)	0.25 cm ³ /min (0.015 in ³ /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)

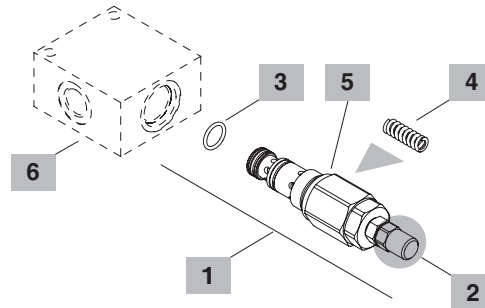
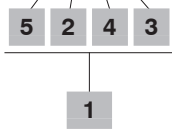
NOTE - For different conditions, please contact Walvoil Sales Dpt.



Valve type		A		B		⌀	Key	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
SAE cavity 10/3		
CA10A/4S2B	OCA10002007	Screw type adjustment, pilot ratio 1:4 pressure range 2
SAE cavity 12/3		
CA12A/4S2B	OCA12002000	Screw type adjustment, pilot ratio 1:4 pressure range 2
SAE cavity 16/3		
CA16A/4S2B	OCA16002001	Screw type adjustment, pilot ratio 1:4 pressure range 2

2 Adjustments	
TYPE	DESCRIPTION
S	Screw
W	Copped adjustment

3 Seals	
TYPE	DESCRIPTION
B	NBR (Buna) Std configuration without addition
V	For valve with FPM (Viton) 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
For CA10A valve		
1	3ML1092502 red band	Setting range 50-220 bar (725-3200 psi)
2	3ML1092300 red band	Setting range 180-350 bar (2600-5100 psi)
3	3ML1102800 red band	Setting range 300-700 bar (4350-10150 psi)
For CA12A valve		
1	3ML1133201 blue band	Setting range 50-220 bar (725-3200 psi)
2	3ML1133200 red band	Setting range 180-350 bar (2600-5100 psi)
3	3ML1133500 yellow band	Setting range 300-700 bar (4350-10150 psi)
For CA16A valve		
1	3ML1164000 blue band	Setting range 50-220 bar (725-3200 psi)
2	3ML1164001 red band	Setting range 180-350 bar (2600-5100 psi)
3	3ML1164002 yellow band	Setting range 300-700 bar (4350-10150 psi)

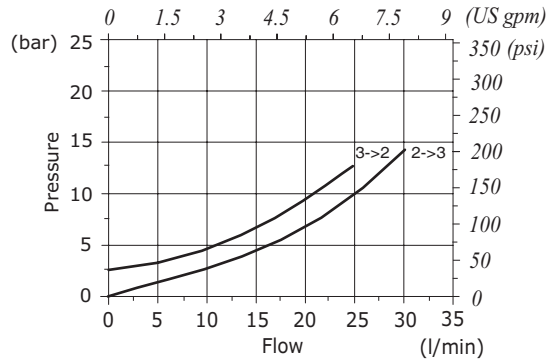
5 Pilot ratio	
TYPE	DESCRIPTION
4	1:4

6 Valve body		
TYPE	CODE	DESCRIPTION
SAE 10/3-SAE8	3CC1030K11	Aluminium body for cavity 10 valve, SAE8 std thread
SAE 12/3-SAE10	3CC1230L11	Aluminium body for cavity 12 valve, SAE10 std thread
SAE 16/3-SAE12	3CC1630M11	Aluminium body for cavity 16 valve, SAE12 std thread

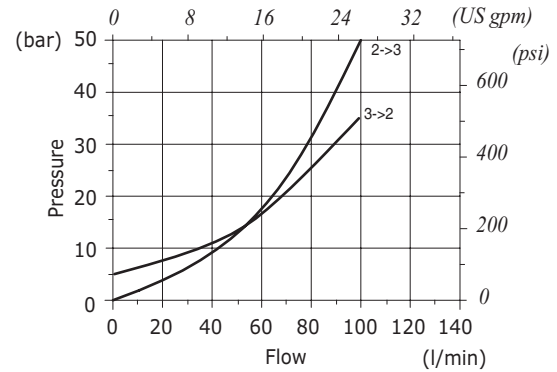
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 217

Rating diagrams

CA10A pressure drop vs flow



CA12A pressure drop vs flow



CA16A pressure drop vs flow

