



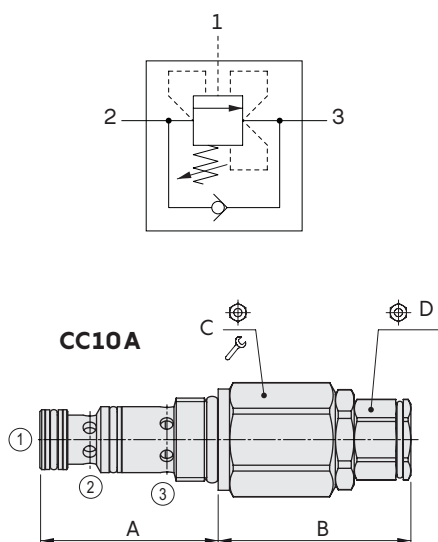
CC..A type counterbalance valves – 3 way

- For closed center
- Line mounting
- Not affected by back pressure
- From SAE10 to SAE16 cavities

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

		CC10A	CC12A	CC16A
Nominal flow		30 l/min (7.9 US gpm)	60 l/min (16 US gpm)	90 l/min (24 US gpm)
Max. pressure		350 bar (5100 psi)		
Oil leakage	at 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)	0.25 cm ³ /min (0.015 in ³ /min)
Fluid		mineral based or synthetic hydraulic fluid with lubricating properties		
Viscosity		10–200 cSt		
Max level of contamination		20/18/14 ISO4406		
Fluid temperature	with NBR seals+PTFE with FPM seals	from -25°C (-13°F) to 90°C (194°F) from -20°C (-4°F) to 110°C (230°F)		
Environmental temp. for working conditions		from -20°C (-4°F) to 60°C (140°F)		
Cavity		SAE 10/3	SAE 12/3	SAE 16/3
Weight		0.280 kg (0.62 lb)	0.380 kg (0.84 lb)	0.720 kg (1.59 lb)

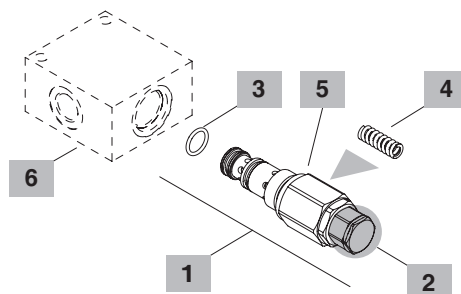
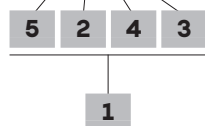
NOTE - For different conditions, please contact Walvoil Sales Dpt.



Valve type	A		B		 C			 D			
	mm	in	mm	in	Nm	lbft	Nm	lbft			
CC10A/	4S	47.2	1.86	51	2.01	27	50	37	19	30	22
	W	47.2	1.86	51	2.01	27	50	37	19	30	22
CC12A/	4S	73.5	2.89	58.5	2.30	32	80	59	24	35	26
	4W	73.5	2.89	58.5	2.30	32	80	59	24	35	26
CC16A/	4S	75	2.95	69	2.72	41	100	74	27	30	22
	4W	75	2.95	69	2.72	41	100	74	27	30	22

Ordering codes and description composition

CC10A/4S2B



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 10/3		
CC10A/4S2B	0CC10002001	Screw type adjustment, pilot ratio 1:4 pressure range 2
SAE cavity 12/3		
CC12A/4S2B	0CC12002000	Screw type adjustment, pilot ratio 1:4 pressure range 2
SAE cavity 16/3		
CC16A/4S2B	0CC16002001	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)+PTFE o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept

4 Pressure setting springs

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

TYPE	CODE	DESCRIPTION
For CC10A valve		
1	3ML1092502	Setting range 50-220 bar (725-3200 psi) red band
2	3ML1092300	Setting range 180-350 bar (2600-5100 psi) red band
3	3ML1102800	Setting range 300-700 bar (4350-10150 psi) red band

For CC12A valve

1	3ML1133201	Setting range 50-220 bar (725-3200 psi) blue band
2	3ML1133200	Setting range 180-350 bar (2600-5100 psi) red band
3	3ML1133500	Setting range 300-700 bar (4350-10150 psi) yellow band

For CC16A valve

1	3ML1164000	Setting range 50-220 bar (725-3200 psi) blue band
2	3ML1164001	Setting range 180-350 bar (2600-5100 psi) red band
3	3ML1164002	Setting range 300-700 bar (4350-10150 psi) yellow band

5 Pilot ratio

TYPE	DESCRIPTION
4	1:4

6 Valve body

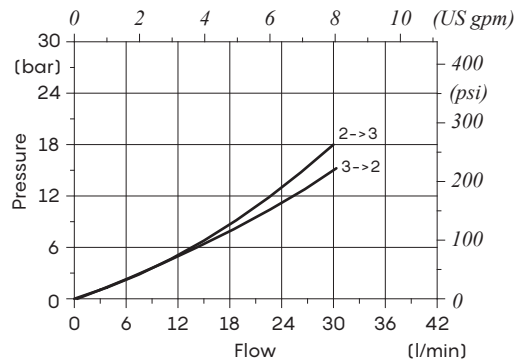
TYPE	CODE	DESCRIPTION
SAE10/3-SAE8	3CC1030K11	Aluminium body for cavity 10 valve, SAE8 std thread
SAE12/3-SAE10	3CC1230L11	Aluminium body for cavity 12 valve, SAE12 std thread
SAE16/3-SAE12	3CC1630M11	Aluminium body for cavity 16 valve, SAE12 std thread

Note: aluminium body can stand up to 210 bar (3050 psi)

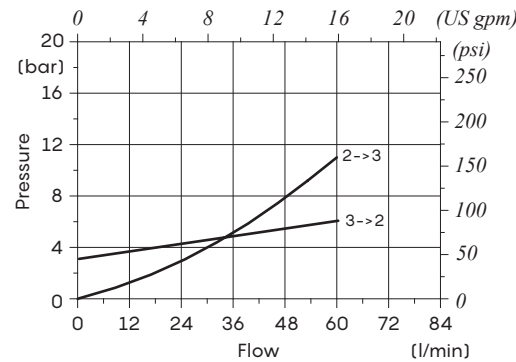
For steel bodies or different threading see from page 210

Rating diagrams

CC10A pressure drop vs. flow



CC12A pressure drop vs. flow



CC16A pressure drop vs. flow

