



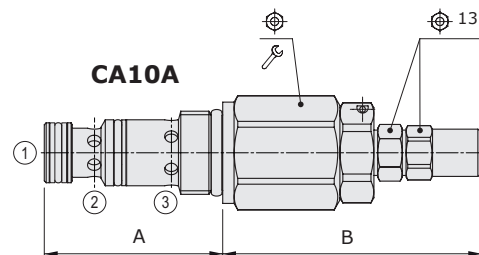
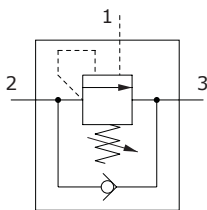
CA..A type counterbalance valves - 3 way

- 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) |

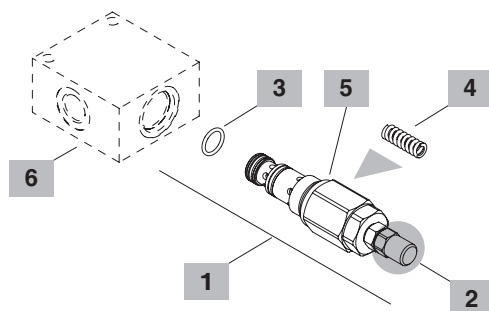
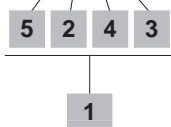
NOTE - For different conditions, please contact Walvoil Sales Dpt.



| Valve type | | A | | B | | | Nm | lbf·ft |
|------------|----|------|------|------|------|----|-----|--------|
| | | 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 | 0CA10002007 | Screw type adjustment, pilot ratio 1:4 pressure range 2 |
| SAE cavity 12/3 | | |
| CA12A/4S2B | 0CA12002000 | Screw type adjustment, pilot ratio 1:4 pressure range 2 |
| SAE cavity 16/3 | | |
| CA16A/4S2B | 0CA16002001 | 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

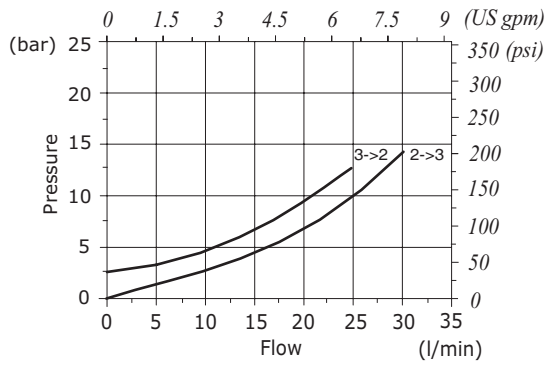
| TYPE | DESCRIPTION |
|----------|-------------|
| 4 | 1:4 |

6 Valve body

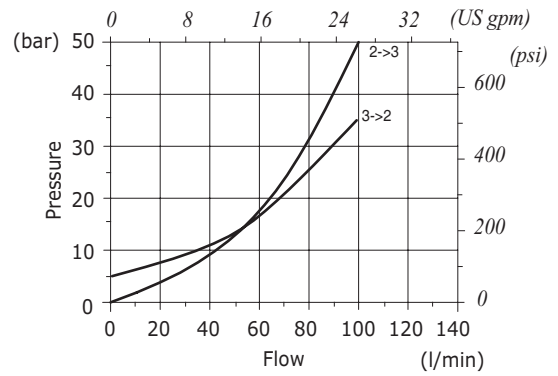
| TYPE | CODE | DESCRIPTION |
|-----------------------|------------|---|
| SAE 10/3-G 3/8 | 3CC1030C11 | Aluminium body for cavity 10, valve G3/8 std thread |
| SAE 12/3-G 1/2 | 3CC1230D11 | Aluminium body for cavity 12 valve, G1/2 std thread |
| SAE 16/3-G 3/4 | 3CC1630E11 | Aluminium body for cavity 16 valve, G3/4 std thread |

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

CA10A pressure drop vs flow



CA12A pressure drop vs flow



CA16A pressure drop vs flow

