

OPERATION

CB10-AV : Counterbalance valve, 10-size, atmospheric vent. This is a 3-ported, externally piloted, cartridge style, low leakage unit. The check section allows free flow from the directional valve (port 2) to the load (port 1). Reverse flow is blocked until pilot pressure is applied at port 3. When the pressure at port 1 rises above the pressure setting, the integral relief valve is activated and vents the area behind the pilot piston.



APPLICATIONS

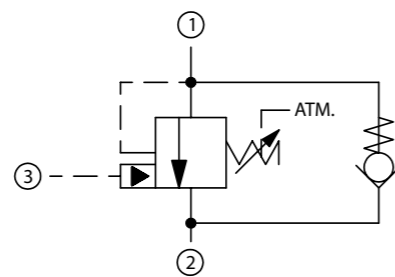
Atmospheric vented valves are applied when it is not practical to connect a separate vent line to the tank. Use a single counterbalance valves when the load is unidirectional, such as aerial lifts, cranes, or winches. In load holding applications, they can be used as hose-break valves when installed near or within an actuator. Dual valves can be used for controlling loads bi-directionally in motor applications, or for cylinders going over center.

SPECIFICATIONS

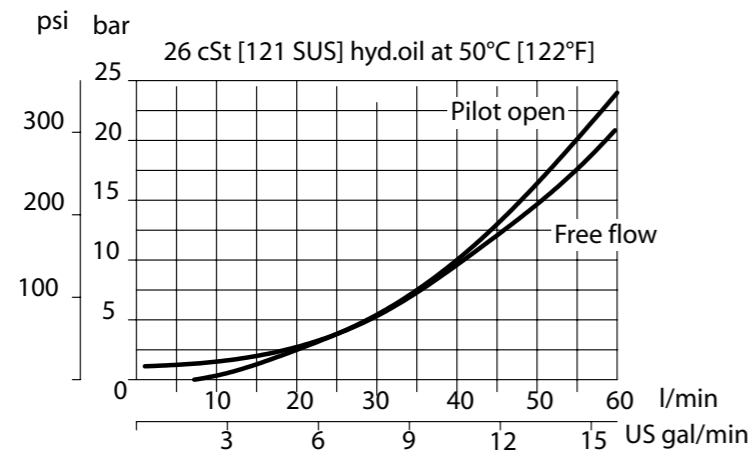
| | |
|---------------------------------------|--------------------------------------|
| Rated pressure | 350 bar [5075 psi]* |
| Rated flow at 22 bar [319 psi] | 60 l/min [16 US gal/min] |
| Leakage | 10 drops/min @ 70% of crack pressure |
| Weight | 0.27 kg [0.60 lb] |
| Pilot ratio | 3:1, 4.5:1, 10:1 |
| Cavity | SDC10-3S |

* 350 bar with steel housing
210 bar with aluminum housing

SCHEMATIC

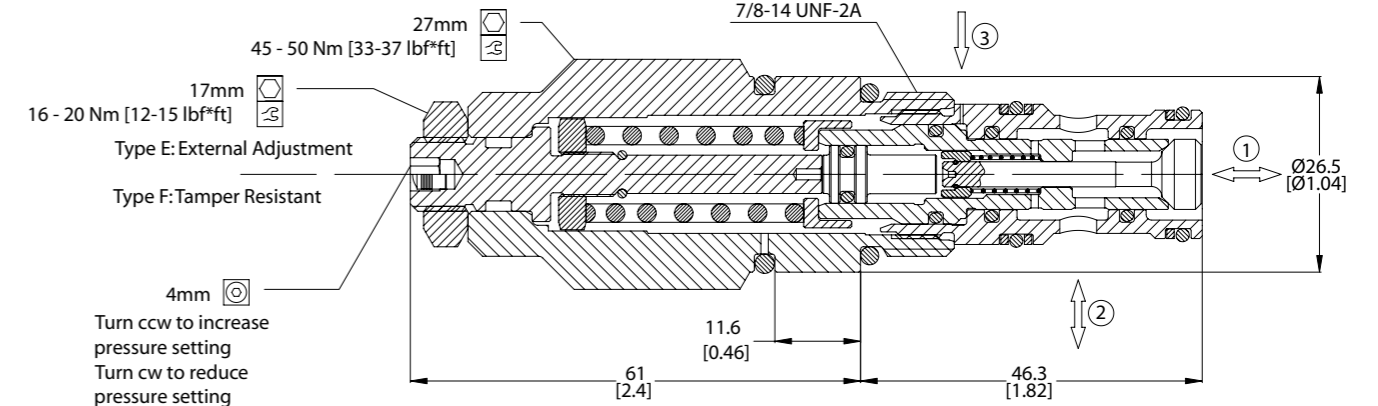


PERFORMANCE



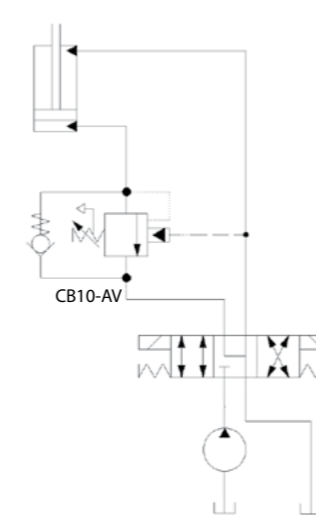
DIMENSIONS

mm [in]

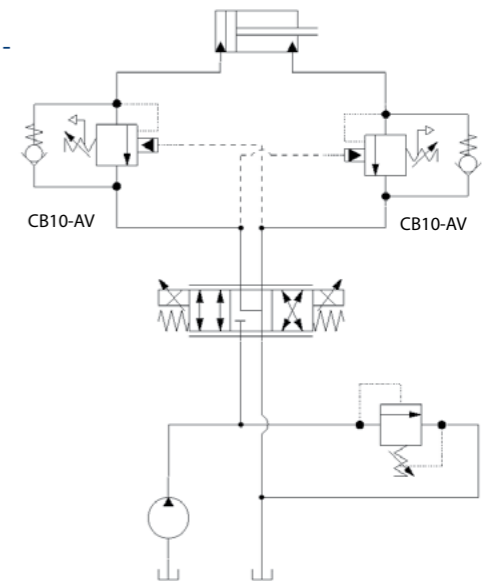


EXAMPLE CIRCUITS

Load Holding - Single Actuator



Counterbalance - Double Actuator



ORDERING INFORMATION

CB10 - AV - 1 - A - 1 - E - XXX - B - 00

CB10-AV: Counterbalance valve, 10-size, atmospheric vent

| Code | Pilot Ratio |
|------|-------------|
| A | 3 to 1 |
| B | 4.5 to 1 |
| C | 10 to 1 |

1: Check crack pressure in bar 1 bar [14.5 psi]

| Code | Pilot Ratio A (3:1) bar (psi) | Pilot Ratio B (4.5:1) bar (psi) | Pilot Ratio C (10:1) bar (psi) |
|------|-------------------------------|---------------------------------|--------------------------------|
| 1 | 35-110 [507-1595] | 55-180 [797-2610] | 90-350 [1305-5075] |
| 2 | 60-150 [870 - 2175] | 75-240 [1087-3480] | |
| 3 | 80-230 [1160 - 3334] | 90-350 [1305-5075] | |

| Code | Seal | Seal Kit |
|------|--------|-----------|
| B | Buna-N | 230001020 |
| V | Viton | 35401519 |

Pressure Setting [in bar] XXX - No factory setting / no stamping
For customer specified settings, enter value in bar (Example 70 bar = 70; 125 bar = 125, etc.)

| Body & Ports | Body Nomenclature |
|-----------------------|-------------------|
| 00 Cartridge Only | No Body |
| SE3B AL, 3/8 BSPP | SDC10-3S-SE3B |
| SE4B AL, 1/2 BSPP | SDC10-3S-SE4B |
| SE54B Steel, 1/2 BSPP | SDC10-3S-SE54B |
| SE4B AL, 1/2 BSPP | SDC10-3S-SE4B |
| 6S AL, #6 SAE | SDC10-3S-6S |
| 8S AL, #8 SAE | SDC10-3S-8S |
| 8S Steel, #8 SAE | SDC10-3-S8S |

Adjustment type
E external adjustment
F tamper resistant

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