



7.3

50CBL90-2A TYPE

Counterbalance Valve

Rated pressure (bar / psi)	380 / 5500
Rated flow (L/min / gpm)	90 / 24

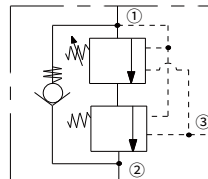
Features

- Two-stage counterbalance type
- Hardened parts for long life
- Quiet, modulated response
- Industry common cavity

Contents

Description	02
Operation	02
Ordering code	02
Materials	02
Technical data	03
Performance	03
Dimensions	04

Symbol

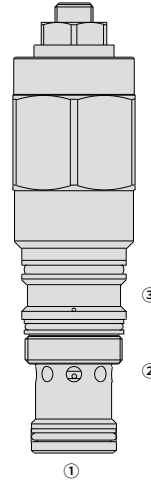


Description

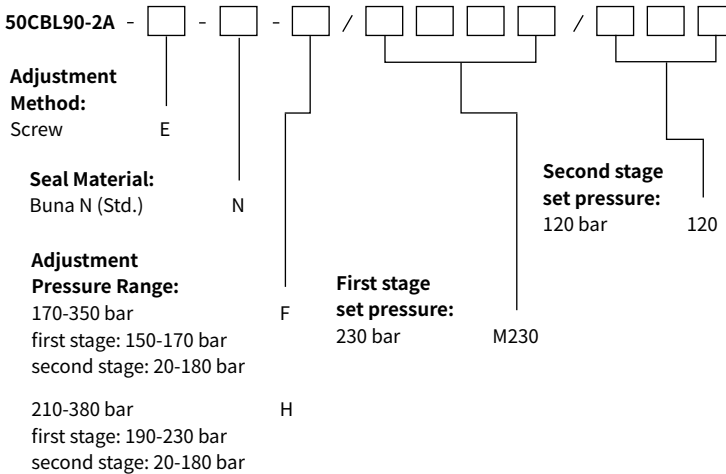
Cartridge-type external pilot-operated counterbalance valves are mainly used to control the speed and direction of movement of hydraulic actuators as well as the stability of the load, and to maintain a counterbalance pressure to provide dampening of cylinders when there is a rapid loss in stored pressure.

Operation

The valve consists of a 2-part check valve and a relief valve: the check valve allows the oil to flow freely into the actuator and then holds the load to prevent reverse movement; when pilot pressure is applied, the pressure setting of the relief valve decreases proportionally to the set ratio until it opens to allow controlled reverse flow and maintains a counterbalance pressure to prevent initial pressure loss and therefore instability .



Ordering Code



Materials

Cartridge:

Weight: 0.5 kg; Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N (Std.) seal.

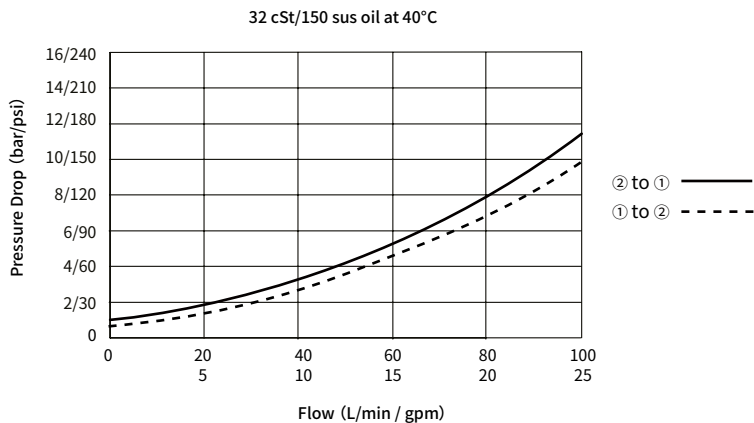
Standard Ported Body:

Anodized high-strength aluminum alloy, rated to 240 bar; Ductile iron and steel bodies available; Dimensions may differ, consult factory.

Technical Data

Rated pressure	380 bar (5500 psi)
Rated flow	90 L/min(24 gpm)
Pilot ratio	5.6:1 (first stage pilot ratio); 0.7:1 (second stage pilot ratio)
Internal leakage	≤ 5 drops/min @ 80% of pressure setting
Cavity	T-2A (See technical reference)
Fluid	Mineral-based or synthetics with lubricating properties
Viscosity range	7.4 to 420 mm ² /s
Temperature range	-40 to 100 °C (Buna N seals)
Degree of fluid contamination	The minimum pollution level is ISO4406 level 18/16/13, and level 15/13/11 is recommended to prolong the service life

Performance (Cartridge Only)



Dimensions

