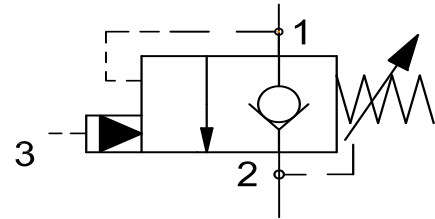
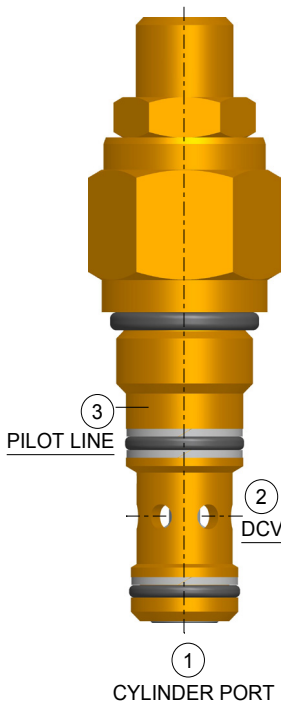


## Counterbalance Valve Poppet Type



- $Q_{(max)}=80 \text{ lpm}$  ,  $P_{(max)}=350 \text{ bar}$  , Pilot Ratio- 4.1:1
- Screw -in Cartridge,
- Direct Acting , Poppet Design ,Pilot Assisted ,Counterbalance Valve



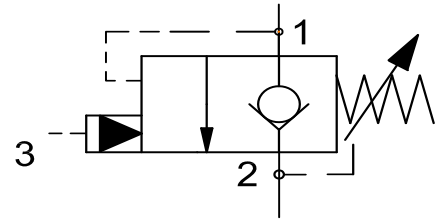
- Smooth, **Modulated motion control** when load is in lowering/run-away condition.
- **Leak free load holding.**
- **Overset Protection** -Spring cannot go solid.
- **Protection** against Hydraulic line failure.
- Available in **Leakproof screw adjustment / Fixed setting cap.**
- Can be fitted in **line mounting bodies.**
- All external parts are **zinc plated ,chromated (CrVI-Free).**
- Designed in accordance to **Industry common Cavities.**

### 1. Description -

SPCB series cartridge valves are **Screw-in, Direct Acting, Poppet type, Pilot assisted** high performance Counterbalance valves. This cartridge controls moving load and prevent it from moving ahead, locking the load at a definite position. It also provides cavitation free motion control to match speed to pump flow when the load could cause loss of control of a cylinder or motor.

This Counterbalance Valve can be used in manifold blocks & line mounting bodies. All external parts of this cartridge are Zinc-plated and chromated (CrVI-free), poppet is hardened and thus suitable to be used in harshest environmental conditions and also provides long life to cartridge.

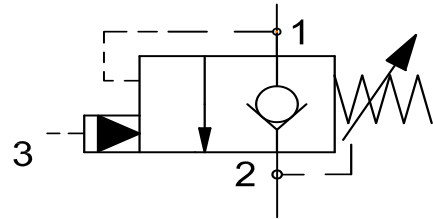
Counterbalance Valve  
Poppet Type



## 2. Technical Data :

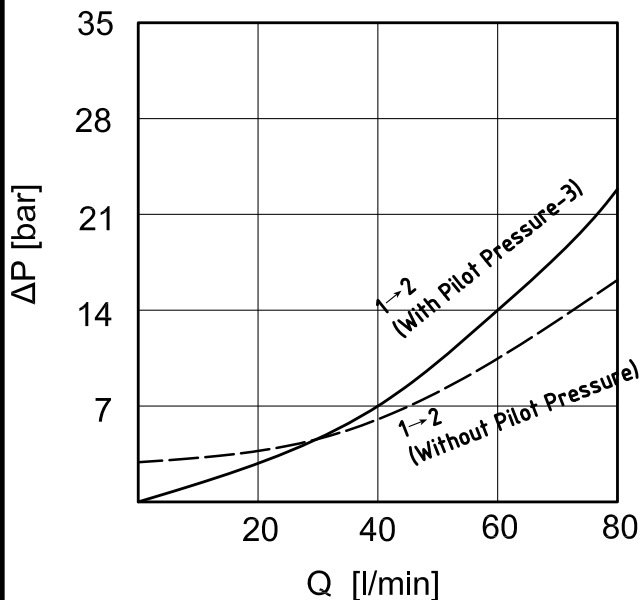
S.no.	General Specification	Values
1.	DESIGNATION	COUNTERBALNCE VALVE
2.	MOUNTING METHOD	SI0-2.5 CAVITY
3.	MAXIMUM OPERATING PRESSURE	350 BAR
4.	MAXIMUM FLOW	80 LPM
5.	MAXIMUM INTERNAL LEAKAGE	6 DROPS/MIN @90% OF CRACKING PRESSURE
6.	VALVE HOUSING	$P_{\text{Hydraulic system}} \leq 210 \text{ BAR}$ -ALUMINUM HOUSING-ANODISED $P_{\text{Hydraulic system}} > 210 \text{ BAR}$ -STEEL HOUSING -ZINC PLATED
7.	OPERATING TEMPERATURE	-35° TO +120° C
8.	HYDRAULIC FLUID	MINERAL OILS WITH LUBRICATING PROPERTIES AT 15.....250 MM <sup>2</sup> /SEC
9.	MINIMUM FLUID CLEANINESS	ISO CLASS 20/18/15
10.	WEIGHT	0.22 KG
11.	INSTALLATION TORQUE	70-80 N/M

## Counterbalance Valve Poppet Type

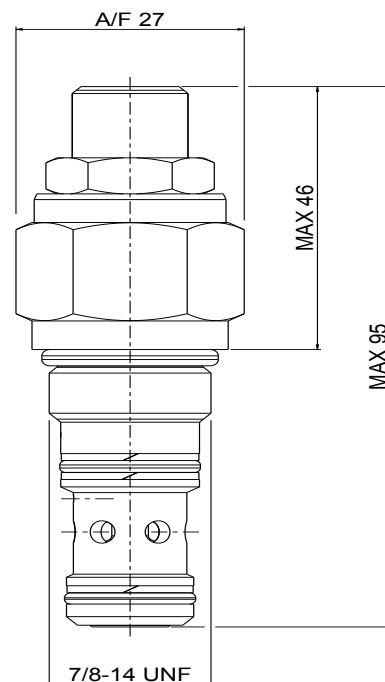


### 3. P-Q Characteristics :

**Note:** The Performance Chart shows Flow handling capacity at specific pressure setting P/Q Curve is recorded at  $Temp_{oil} = 40^{\circ}C$  at 46 cst.



### 4. Dimensioning :



### 5. Ordering Code :

**SPCB - 10 - X - X - X - XXX**

#### VALVE BASIC CODE

CAVITY TYPE = 7/8" -14 UNF  
METRIC CAVITY AVAILABLE ON  
REQUEST

#### ADJUSTMENT :

C = CAPPED  
A = ADJUSTMENT SCREW  
K = KNOB

#### HOUSING & PORTS

C : Cartridge only  
XA3 : 3/8" BSP  
XA4 : 1/2" BSP  
XB8 : SAE #8  
XB10 : SAE #10

A : Aluminium Housing  
S : Steel Housing

PRESSURE SETTING (bar)  
000 = for no specific setting

#### SPRING RANGE :

A = 10-100 bar  
B = 20-200 bar  
C = 30-300 bar