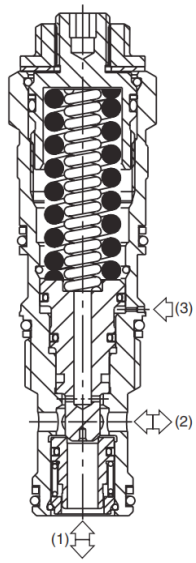
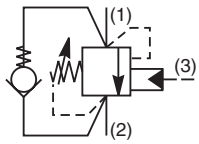
General Description

Threaded Cartridge Style Counterbalance Valve. Pilot assisted, designed for motion control applications.
For additional information see Technical Tips on pages LM2-LM5.



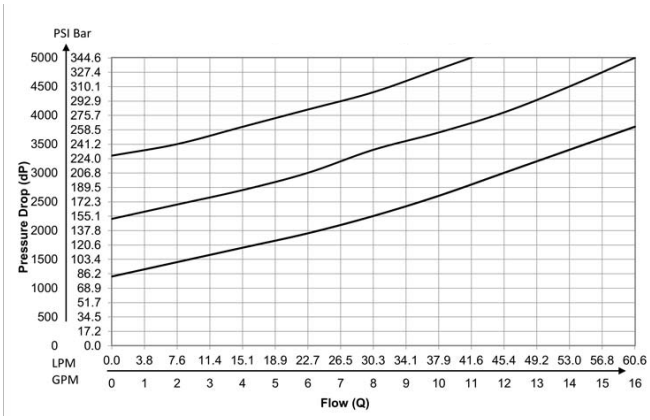


Features

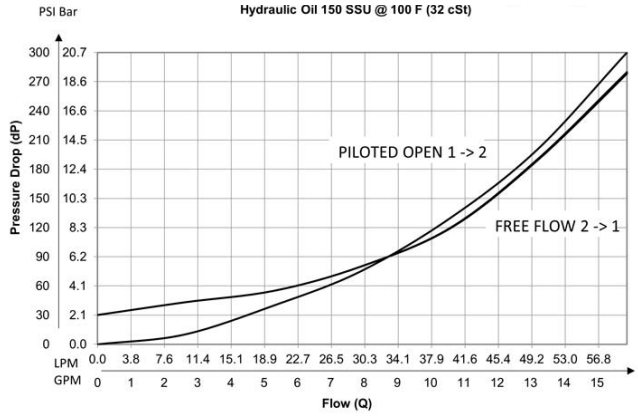
- Poppet construction for minimal leakage
- Incorporates direct acting relief valve for overload protection
- Includes reverse check valve within body, saving space and minimizing installation cost
- Fully sealed pilot for high efficiency and accurate pilot ratio
- Three pilot ratios available, 1.5 :1, 3:1, and 4.5:1
- Hardened working parts for maximum durability
- All external parts zinc plated

Performance Curves

Relief Performance 1 to 2



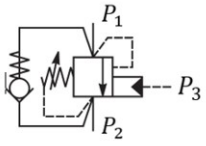
Pressure Drop vs Flow



Required Piloted Pressure Calculation

$$P_3 = \left(\frac{P_C - P_1}{P_R}\right) + P_2 * \left(\frac{1}{P_R} + 1\right)$$

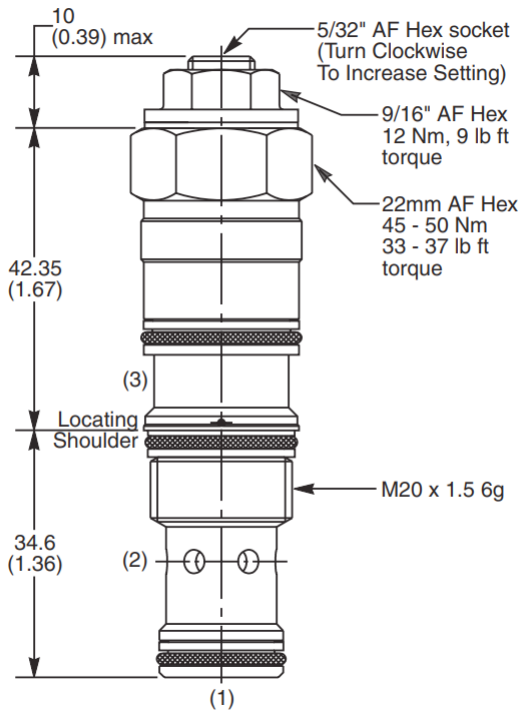
P_C = *Crack Pressure Setting*
P_R = *Pilot Ratio*



Specifications

Rated Flow	60 LPM (16 GPM)
Pressure	40-350 Bar (580-5000 PSI)
Sensitivity: Pressure/Turn	104 Bar (1508 PSI)
Pilot Ratio	E2E1 - 1.5 : 1 E2K1 - 3 : 1 E2M1 - 4.5 : 1
Leakage at 150 SSU (32 cSt)	5 drops/min. (0.33 cc/min) @ 75% of thermal crack pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F)
Fluid Compatibility/ Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO-4406 18/16/13, SAE Class 4
Approx. Weight	0.17 kg (0.37 lbs.)
Cavity	CAVT11A (See BC Section for more details)

Dimensions Millimeters (Inches)



Ordering Information

E2		1	Z	N
Load Control Valve	Pilot Ratio		Adjustment Style	Seals

Highlighted represents preferred options that offer the shortest lead times. Other options may be available, but at extended lead times.

Code	Pilot Ratio
E	1.5 : 1
K	**3 : 1**
M	4.5 : 1

Code	Seals
N	**Nitrile**

Order Bodies Separately
See section BC

LB10	825	S
Line Body	Porting	Body Material

Code	Porting
825	1/2" SAE (main) 1/4" SAE (aux)

Code	Adjustment Style
Z	**Screw Adjust (standard)**

Code	Body Material
S	Steel /(5000PSI)

Kit	Part Number
Tamper Resistant Cap	TC1130
Nitrile Seal	SK30008N-1
Fluorocarbon Seal	SK30008V-1

Standard valve is set to crack at 215 Bar (3120 PSI). Valve to be set to 1.3 times maximum load induced pressure.