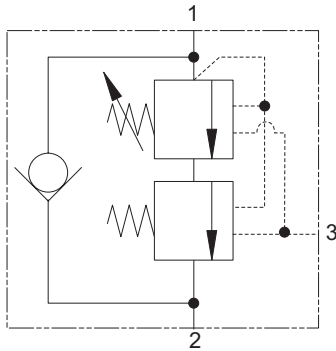


1SEL90 - Overcenter Valve

Counterbalance, pilot assisted relief with check
90 L/min (23 USgpm) • 380 bar (5510 psi)

www: www.salushydraulics.pl
e-mail: pl@salushydraulics.pl
shop/sklep: www.sklep.salushydraulics.pl

Eaton 1SEL90F30S220/60
Eaton 1SEL90F20S160/60



Operation

The check section allows free flow and then locks the load against movement. The pilot assisted relief valve section will give controlled movement when pilot pressure is applied, maintaining a counterbalance pressure to prevent initial

pressure loss and therefore instability. The total pressure setting will normally be set at 1.3 times the load induced pressure. The counterbalance pressure reduces as the pilot pressure increases.

Features

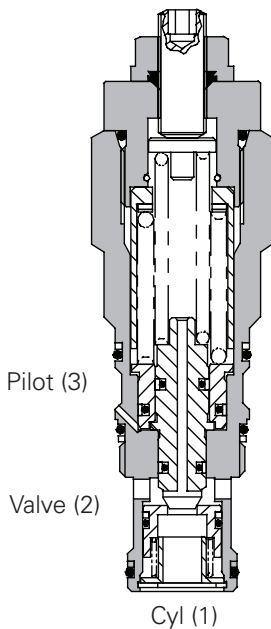
Cartridge is economical and fits simple cavity. Allows quick, easy field service - reduces down time. Interchangeable with pilot check valve of a similar size.

Pilot Ratio

Primary 5.6:1

Secondary 0.7:1

Sectional View



Performance Data

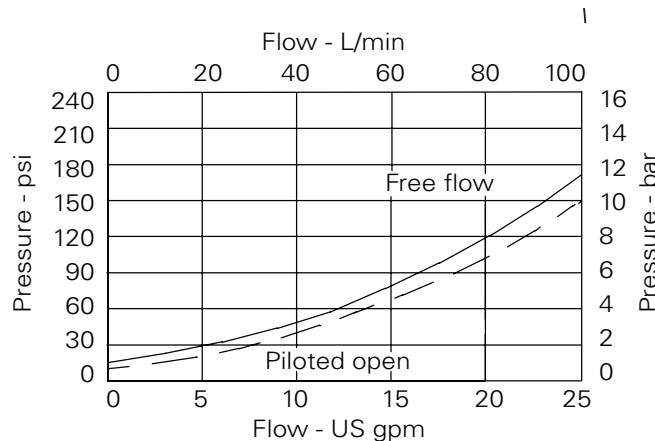
Ratings and Specifications

Figures based on: Oil Temp = 40°C Viscosity = 32 cSt (150 SUS)

Rated flow	90 L/min (23 USgpm)
Max setting	380 bar (5510 psi)
Cartridge material	Working parts hardened and ground steel. External steel surfaces zinc plated.
Mounting position	Unrestricted
Cavity number	A20092-T2A
Torque cartridge into cavity	60 Nm (44 lbs ft)
Weight	0.42 kg (0.92 lbs)
Seal kit number	SK1093 (Nitrile) SK1093V (Viton)
Recommended filtration level	BS5540/4 Class 18/13 (25 micron nominal)
Operation temperature	-30° to +90°C (-22° to +194°F)
Leakage	0.3 milliliters/min nominal (5 dpm)
Nominal viscosity range	5 to 500 cSt

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Pressure Drop



Note: This valve has been designed to eliminate instability from flexible boom applications or where the load induced pressure varies greatly. To get the best results, the settings should be adjusted for each application and then factory set for production quantities. Please contact Technical Department for more information.

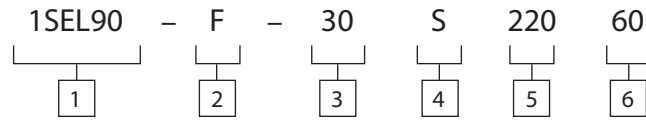
Description

The 1SEL overcenter valve performs all duties of a regular overcenter but maintains a counterbalance pressure to provide dampening of cylinders when there is a rapid loss in stored pressure. This counterbalance pressure reduces as the pilot pressure increases. Typical applications include extension cylinders on telescopic handlers where it is important to have a smooth operation when retracting from full extension.

1SEL90 - Overcenter Valve

Counterbalance, pilot assisted relief with check
90 L/min (23 USgpm) • 380 bar (5510 psi)

Model Code

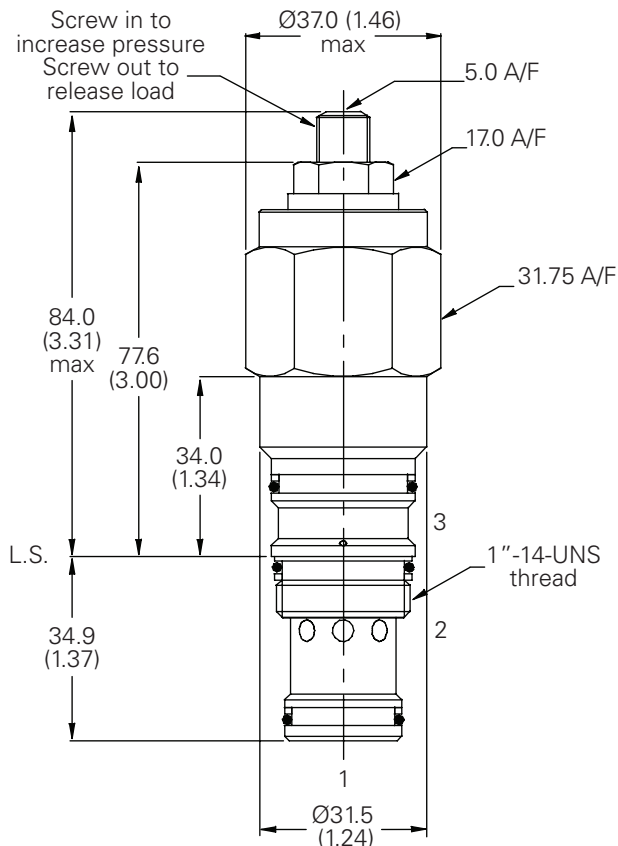


1 Function 1SEL90 -	3 Pressure Range @ 4.8 L/min Note: Code based on pressure in bar. 20 - 170-350 bar Std setting 220 bar (160/60) 35 - 210-380 bar Std setting 250 bar (220/60) Std setting made at 4.8 L/min	4 Seals S - Nitrile (For use with most industrial hydraulic oils) SV - Viton (For high temperature and most special fluid applications)	5 High Pressure Setting Bar (10 bar increments). 150 to 650 bar (2175 to 3335 psi)
2 Adjustment Means Counterbalance Setting F - Screw Adjustment N - Fixed - State pressure setting required For fixed versions add setting in 10 bar increments to end of part number. Subject to a ±10% tolerance.			
		6 Counterbalance Setting Bar (10 bar increments). 20 to 170 bar (100 to 250 psi)	

Dimensions

mm (inch)

Cartridge Only
Basic Code
1SEL90



Note: Tightening torque of "F" adjuster locknut - 20 to 25 Nm

Cavity
Model A20092-T2A
Form Drill TD-2A
Form Reamer TR-2A

