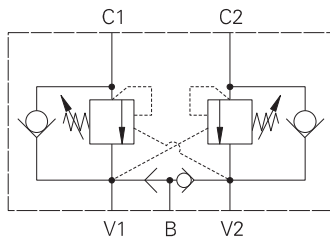


ICEESH150 - Dual overcenter valve

Pilot assisted relief with brake shuttle
150 L/min (40 USgpm) • 270 bar (4000 psi)



Operation

The check section allows free flow into the actuator then holds and locks the load against movement. The pilot assisted relief valve section will give controlled movement when pilot pressure is applied. The relief section is normally set to open at a pressure at least 1.3 times the maximum load induced pressure but the pressure required to open the valve and allow movement

depends on the pilot ratio of the valve. For optimization of load control and energy usage, a choice of pilot ratios is available.

The pressure required to open the valve and start actuator movement can be calculated as follows:

$$\text{Pilot Pressure} = \frac{(\text{Relief Setting}) - (\text{Load Pressure})}{\text{Pilot Ratio}}$$

Features

These valves have the excellent load control and safety features of the dual overcenter valve with the addition of a port for a brake release line. Smooth, safe performance.

Pilot ratio

3.5:1 Best suited for applications where load varies and machine structure can induce instability.

Description

Overcenter Valves give static and dynamic control of loads by regulating the flow into and out of hydraulic actuators. When installed close to or within an actuator, the overcenter valve will stop runaway in the event of hose burst and if open center directional control valves are used, will allow thermal expansion relief of the hydraulic fluid.

These dual overcenter valves also contain a brake release shuttle valve which ensures that pressure is applied to a brake release circuit regardless of whether pressure is applied to ports V1 or V2. These multifunction valves are normally used for the static and dynamic control of systems using motors or semi-rotary actuators.

Performance data

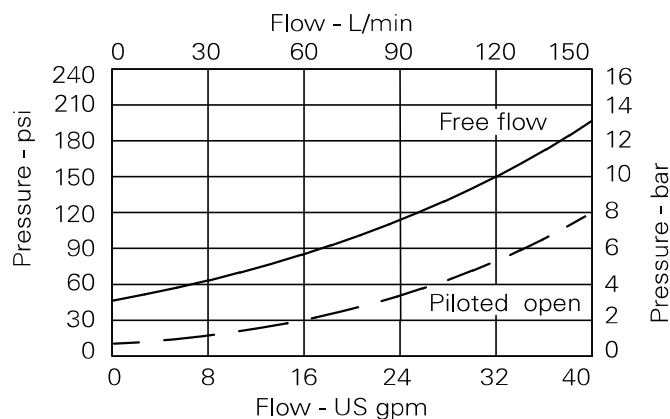
Ratings and specifications

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

| | |
|---------------------------|--|
| Rated flow | 150 L/min (40 USgpm) |
| Max relief pressure | 350 bar (5000 psi) |
| Max load induced pressure | 270 bar (4000 psi) |
| Cartridge material | Working parts hardened and ground steel. External surfaces electroless nickel plated. |
| Standard housing material | Steel |
| Mounting position | Line Mounted |
| Weight | 3.50 kg (7.70 lbs) |
| Seal kit | SK818 (Nitrile) SK818V (Viton®) |
| Filtration | BS5540/4 Class 18/13 (25 micron nominal) |
| Temperature range | -30° to +90°C (-22° to +194°F) |
| Internal leakage | 0.3 milliliters/min nominal (5 dpm) |
| Nominal viscosity range | 5 to 500 cSt |

Viton is a registered trademark of E.I. DuPont.

Pressure drop

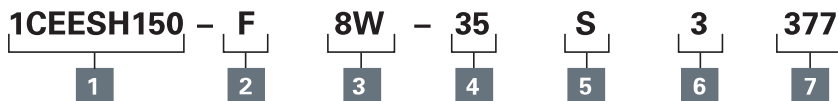


Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

1CEESH150 - Dual overcenter valve

Pilot assisted relief with brake shuttle
150 L/min (40 USgpm) • 270 bar (4000 psi)

Model code



1 Function

1CEESH150 - Cartridges and Body

2 Adjustment means

F - Screw adjustment

3 Port size

| Code | Port size | Housing number - body only |
|--------------|---|----------------------------|
| Steel | | |
| 8W | 1" BSP Valve & Cyl Port 1/4" BSP Pilot Port | CXP15933-8W-377 |

4 Pressure range @ 4.8 L/min

Note: Code based on pressure in bar.

35 - 70-350 bar.
Std setting 210 bar

Std setting made at 4.8 L/min

5 Seal material

S - Nitrile (For use with most industrial hydraulic oils.

SV - Viton (For high temperature and most special fluid applications)

6 Pilot ratio

3 - 3.5:1

7 Body material

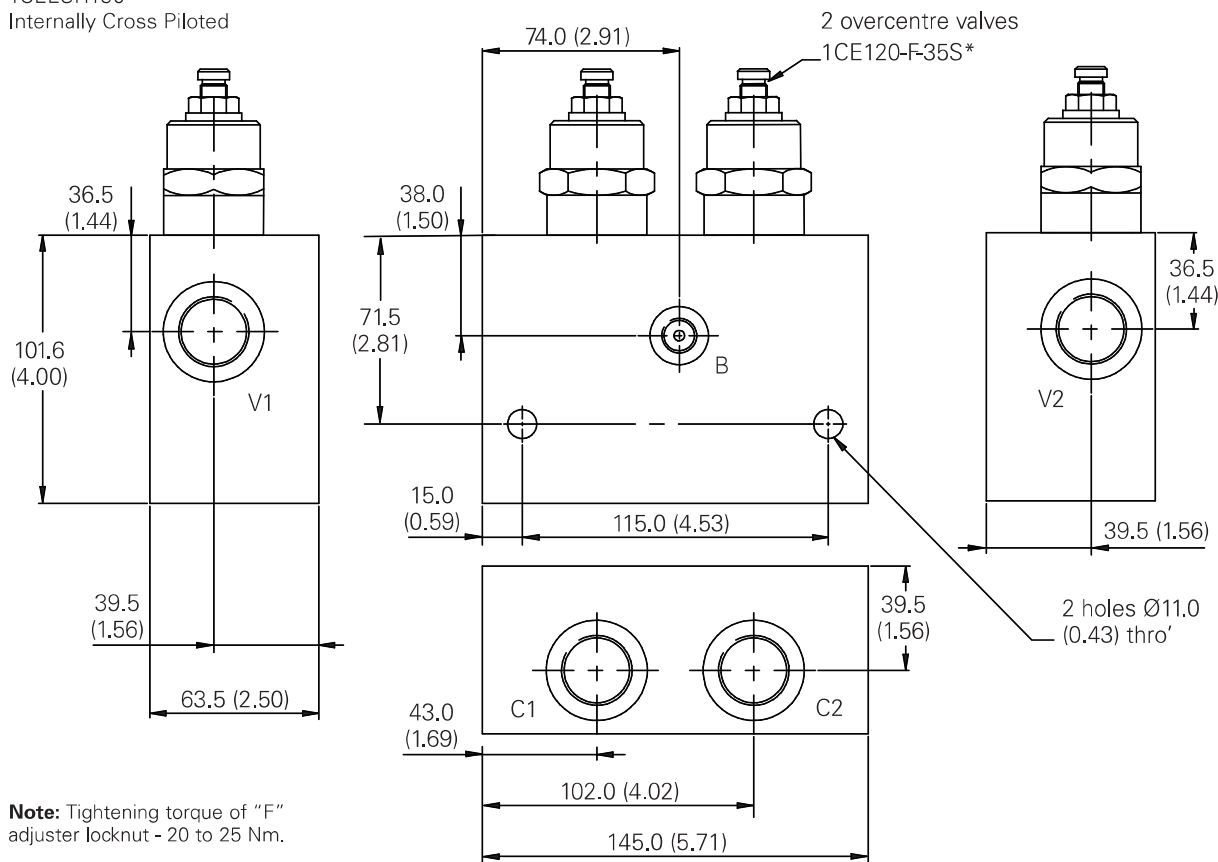
377 - Steel

Dimensions

mm (inch)

Complete valve

1" Ports
Basic Code
1CEESH150
Internally Cross Piloted



Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.