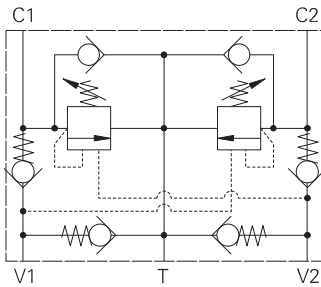


1CEEC95 - Motion control & lock valve

Pilot assisted relief
95 L/min (25 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 follow

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

A system of check valves allows crossline relief for dynamic applications with the optional make up facility to compensate for any change in system volume.

Features

These valves provide complete circuit control and protection in a single valve body, reducing installation time and cost. Smooth, safe performance of dual direction actuators.

Pilot ratio

4:1 Best suited for applications where the load varies and machine structure can induce instability.

8:1 Best suited for applications where the load remains relatively constant.

Description

Motion control and lock valves give static and dynamic control by regulating the flow into and out of hydraulic actuators. When installed close to an actuator, the valve can stop runaway in the event of hose burst. The valves also give dual thermal and overload relief protection.

A low pressure tank or charge line may be connected to the T port to provide a make-up flow to either actuator port.

Performance data

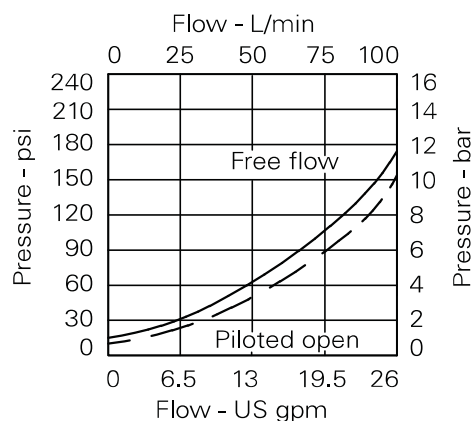
Ratings and specifications

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

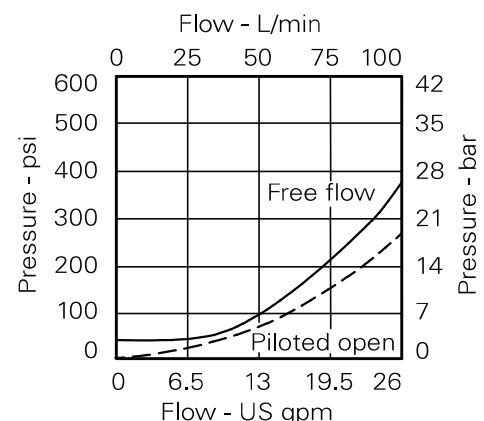
| | |
|---------------------------|---|
| Rated flow | 1CEEC95 95 L/min (25 USgpm) |
| Max relief pressure | 350 bar (5000 psi) (35) , 225 bar (3260 psi) (20) |
| Max load induced pressure | 270 bar (4000 psi) (35) , 160 bar (2300 psi) (20) |
| Cartridge material | Working parts hardened and ground steel. External surfaces electroless nickel plated. |
| Standard housing material | Steel |
| Mounting position | Line mounted |
| Weight | 3.70 kg (8.20 lbs) |
| Seal kit | SK814 (Nitrile) SK814V (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



4:1 version



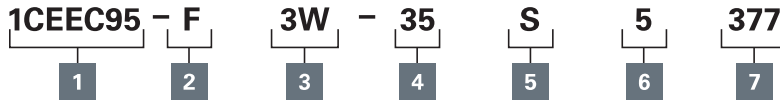
8:1 version

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

1CEEC95 - Motion control & lock valve

Pilot assisted relief
95 L/min (25 USgpm) • 270 bar (4000 psi)

Model code



1 Basic code

1CEEC95 - Cartridge and Body

2 Adjustment means

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.

3 Port size

| Code | Port size | Housing number- body only |
|------|-----------|---------------------------|
|------|-----------|---------------------------|

Steel

| | | |
|-----------|-----------------|-------------------|
| 6W | 3/4" BSP | BXP16248-6W-S-377 |
|-----------|-----------------|-------------------|

4 Pressure range @ 4.8 L/min

Note: Code based on pressure in bar.

35 - (4:1 and 8:1)
200-350 bar
Std setting 210 bar

Std setting made at 4.8 L/min

5 Seals

S - Nitrile (For use with most industrial hydraulic oils.)
SV - Viton (For high temperature and most special fluid applications made at 4.8 L/min)

6 Pilot ratio

4 - 4:1

8 - 8:1

Other ratios available upon request

7 Body material

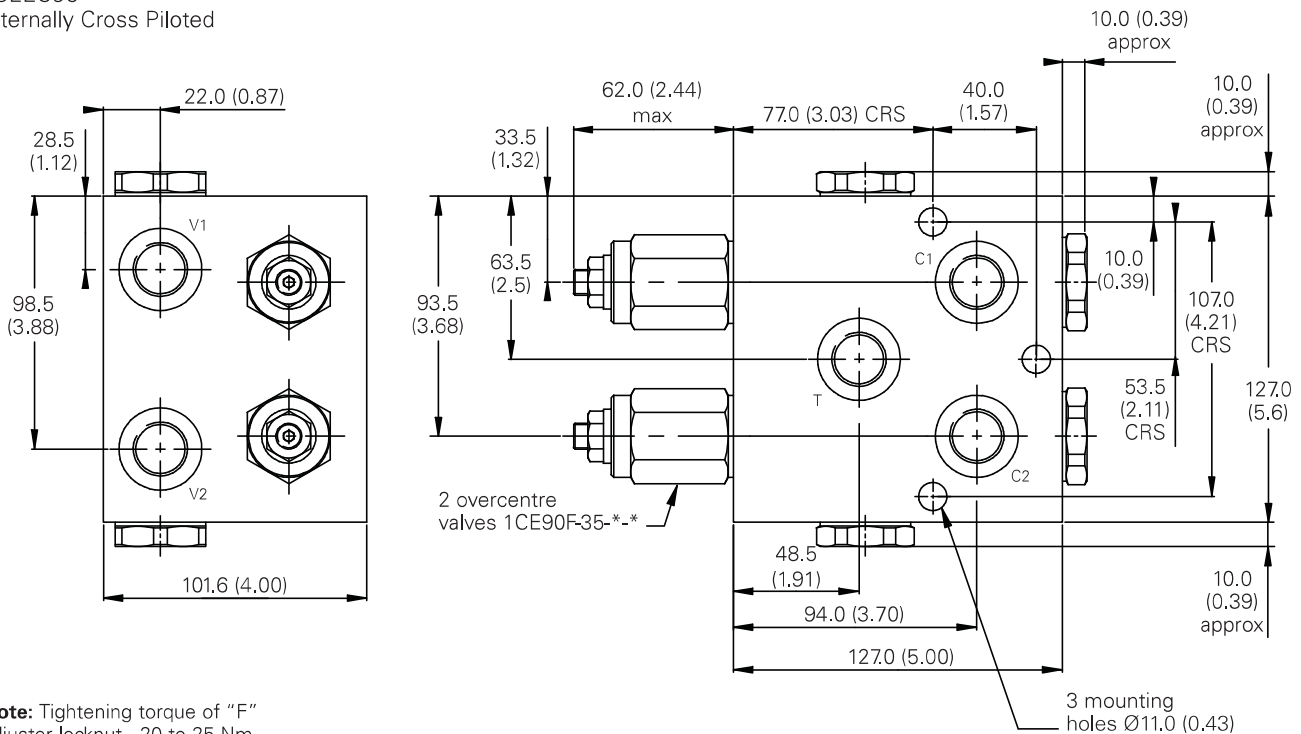
377 - Steel

Dimensions

mm (inch)

Complete valve

3/4" Ports
Basic Code
1CEEC95
Internally Cross Piloted



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

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