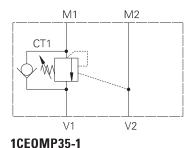
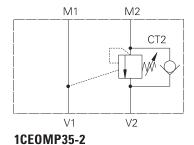
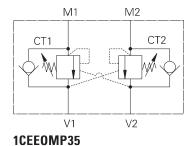
1CEOMP35/1CEEOMP35 - Motor mounted valves

OMP mounting pattern single and dual overcenter valves







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.

The overcenter cartridge is ideal for mounting directly into a cavity machined in the body of the cylinder, motor or rotary actuator. The cartridge can also be mounted directly to the ports via a specifically machined body as part of a Hydraulic Integrated Circuit or single unit, or contained within one of our standard line bodies.

Single overcenter valves are normally used when the load is unidirectional, for example an aerial platform or crane and dual overcenter valves are used for controlling loads in both directional for motor applications or for cylinders going over center.

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:

Pilot Pressure =

(Relief Setting) - (Load Pressure) Pilot Ratio

Pilot Ratios

- 2.5:1 Best suited for extremely unstable applications such as long booms or flexible frameworks.
- Best suited for applications where load varies (Standard) and machine structure can induce instability
- Best suited for applications where the load remains relatively constant.

Performance data

Ratings and specifications

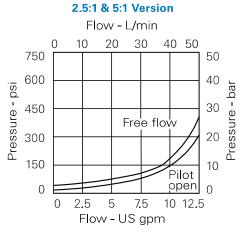
Max settingMax load induced Pressure: Relief setting:270 bar (4000 psi 350 bar (5000 psi 350 bar 350 bar	Figures based on: Oil Temp = 40°C Viscosity = 32 cSt (150 SUS)		
Pressure: Relief setting: 270 bar (4000 psi 350 bar (5000 psi 5000 psi	Rated flow	30 L/min (8 USgpm)	
Cartridge materialRelief setting:350 bar (5000 psiBody materialWorking parts hardened & ground stee External surface zinc platedBody materialStandard aluminium (up to 210 bar* Add suffix '377' for steel optionMounting positionUnrestrictedCavity NumberA6610 (See section MTorque cartridge into cavity45 Nm (33 ibs ftWeight (inc cartridges)1CEE0MP35 1.66 kg (3.52 lbs (inc cartridges)Seal kit number1CE0MP35 SK1285 (Nitrile)SK1285 (Nitrile) SK1285V (Viton 1CEE0MP35 SK1284 (Nitrile)Recommended filtration levelBS5540/4 Class 18/13 (25 micron nominal	Max setting	Max load induced	
Cartridge material Body material Body material Body material Standard aluminium (up to 210 bar* Add suffix '377' for steel option Mounting position Cavity Number Torque cartridge into cavity Weight (inc cartridges) Seal kit number Tocommended filtration level Working parts hardened & ground stee External surface zinc plated Standard aluminium (up to 210 bar* Add suffix '377' for steel option Unrestricted 10 See section M Torque cartridge into cavity 45 Nm (33 ibs ft Weight 10 CEOMP35 1.6 kg (3.52 lbs inc cartridges) Scal kit number 10 CEOMP35 1.66 kg (3.65 lbs inc cartridges) Sk1285 (Nitrile) Sk1285V (Viton inc cartridges) Recommended filtration level	·		
Body material Body material Standard aluminium (up to 210 bar* Add suffix '377' for steel option Mounting position Cavity Number Torque cartridge into cavity Weight (inc cartridges) Seal kit number 1CEOMP35 1.66 kg (3.52 lbs inc cartridges) Seal kit number 1CEOMP35 1.66 kg (3.65 lbs inc cartridges) SK1285 (Nitrile) SK1285V (Viton inc cartridges) Recommended filtration level	Cartridge material	, , ,	
Mounting position Add suffix '377' for steel option Cavity Number A6610 (See section M Torque cartridge into cavity 45 Nm (33 ibs ft Weight (inc cartridges) 1 CEOMP35 1.6 kg (3.52 lbs (3.65 lbs cell kit number) Seal kit number 1 CEOMP35 SK1285 (Nitrile) SK1285 V (Viton SK1284 V	Cal thuge material	External surface zinc plated	
Mounting position Unrestricted Cavity Number A6610 (See section M Torque cartridge into cavity 45 Nm (33 ibs ft Weight (inc cartridges) 1CEOMP35 1.66 kg (3.52 lbs (3.65 lbs calkit number) Seal kit number 1CEOMP35 SK1285 (Nitrile) SK1285 (Viton SK1284 (Nitrile) SK1284 (Viton Cartridges) Recommended filtration level BSS540/4 Class 18/13 (25 micron nominal colspan="2">18/13	Body material	Standard aluminium (up to 210 bar*) Add suffix '377' for steel option	
Torque cartridge into cavity 45 Nm (33 ibs ft Weight (inc cartridges) 1CEOMP35 1.66 kg (3.52 lbs ft) Seal kit number 1CEOMP35 1.66 kg (3.65 lbs ft) Recommended filtration level 8K1285 (Nitrile) 5K1284 (Nitrile) 5K1	Mounting position	Unrestricted	
Weight (inc cartridges) 1CEOMP35 1CEEOMP35 1.6 kg 1.66 kg (3.52 lbs (3.65 lbs Seal kit number 1CEOMP35 1CEEOMP35 SK1285 (Nitrile) SK1284 (Nitrile) SK1285 (Nitrile) SK1284V (Viton Recommended filtration level BS5540/4 Class 18/13 (25 micron nominal	Cavity Number	A6610 (See section M)	
(inc cartridges) 1CEEOMP35 1.66 kg 3.65 lbs Seal kit number 1CEOMP35 SK1285 (Nitrile) SK1285V (Viton NCEEOMP35 SK1284 (Nitrile) SK1284V (Viton NCEEOMP35 SK1284 (Nitrile) Recommended filtration level BS5540/4 Class 18/13 (25 micron nominal	Torque cartridge into cavity	45 Nm (33 ibs ft)	
Seal kit number 1CEOMP35 1CEEOMP35 2K1285 (Nitrile) 1CEEOMP35 3K1284 (Nitrile) 2K1285V (Viton 1CEEOMP35 2K1284 (Nitrile) 2K1284V (Viton 1CEEOMP35 2K1284 (Nitrile) 2K1284 (N			
1CEEOMP35 SK1284 (Nitrile) SK1284V (Viton Recommended filtration level BS5540/4 Class 18/13 (25 micron nominal		<u> </u>	
	Seal kit number		
Operating Temp -30°C to +90°C (-22° to 194°F	Recommended filtration level	BS5540/4 Class 18/13 (25 micron nominal)	
	Operating Temp	-30°C to +90°C (-22° to 194°F)	
Leakage 0.3 milliL/min nominal (5 dpm	Leakage	0.3 milliL/min nominal (5 dpm)	
Nominal viscosity range 5 to 500 cS	Nominal viscosity range	5 to 500 cSt	

K

1CEOMP35/1CEEOMP35 - Motor mounted valves

OMP Mounting pattern single and dual overcenter valves

Pressure drop



10:1 Version Flow - L/min 20 30 50 750 600 40 Pressure - psi Pressure - bar 450 30 Free flow 300 150 10 Pilot open 0 0 0 2.5 7.5 10 Flow - US gpm

Model code



1 Basic code

1CEEOMP35 - Double Cartridge and Body 1CEOMP35-1 - Single overcenter in line V1-M1 1CEOMP35-2 - Single overcenter in line V2-M2

2 Adjustment means

F - Screw Adjustment

3 Port size

Code	Port size	Housing number
4W	1/2" BSPP	BXP24052-4W-S

4 Pressure range

Note: Code based on pressure in bar.

- 20 (2.5:1 and 5:1): 70-210 bar. Std setting 100 bar (10:1): 100-210 bar. Std setting 100 bar
- **35** (2.5:1 and 5:1): 100-350 bar, Std setting 210 bar (10:1): 120-350 bar. Std setting 210 bar

Std setting made at 4.8 L/min
* Cartridges must not be adjusted above
the safe working pressure of the motor

5 Seals

S - Nitrile (For use with most industrial

hydraulic oils) **SV** - Viton

(For high temperature and most special fluid applications)

6 Pilot ratio

2 - 2.5:1 **5** - 5:1

10 - 10:1

7 Mounting

BK - Bolt Kit

Cavity plug part number

Nitrile AXP13032-01-N

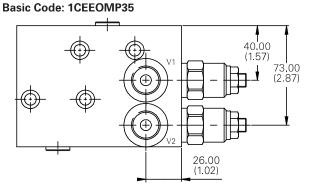
Viton AXP13032-01-V

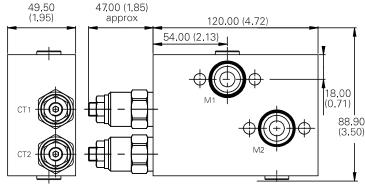
Dimensions

mm (inch)

K

Complete Valve 1/2" Ports





2 overce 1CE30-F

2 overcentre valves 1CE30-F**-*-*

Note: For applications over 210 bar (3000 psi), please consult our technical department or use the steel body option. Tightening torque of "F" adjuster locknut - 20 to 25 Nm

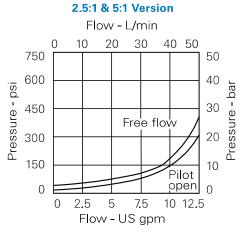
Check motor mounting compatibility before specifying.

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

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OMP Mounting pattern single and dual overcenter valves

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7 Mounting

BK - Bolt Kit

Cavity plug part number

Nitrile AXP13032-01-N

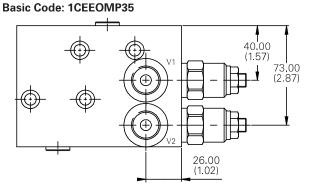
Viton AXP13032-01-V

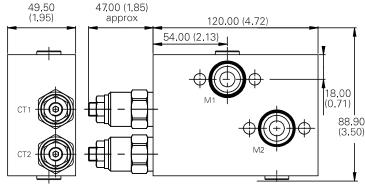
Dimensions

mm (inch)

K

Complete Valve 1/2" Ports





2 overce 1CE30-F

2 overcentre valves 1CE30-F**-*-*

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