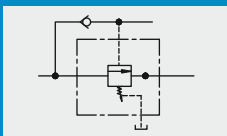
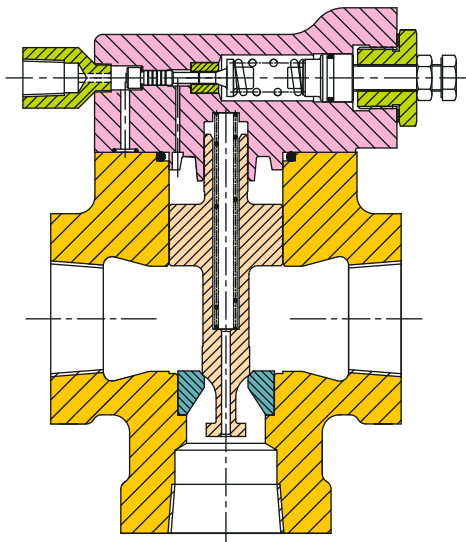


UNLOADING RELIEF VALVES (THREADED CONNECTION)



SERIES – PCV14



Basic Characteristics

Operating Pressure (maximum) - 210 bar (3000 psi)

Rated Capacity (maximum) -

PCV14-06-10 – 76 L/min.

PCV14-10-10 - 189 L/min.

Approx. Weights

PCV14 - 06 = 4.535 kg.

PCV14 - 10 = 9.070 kg.

General Description

These valves are used in oil hydraulic circuits where a pressure regulator is required to automatically unload the pump by diverting the pump delivery to the reservoir, at low pressure, when the accumulator pressure reaches the desired maximum (or “cut out”) pressure. When the accumulator pressure drops to the “cut in” pressure (approximately 85% of the desired maximum), the valve directs pump delivery to the accumulator and hydraulic system. The valve may also be used with a double pump to deliver a large volume of oil to the system at low pressure and small volume at high pressure, serving the same function as an unloading valve. A separate right angle check valve, CV1-3/4”-Y or CV1-1 1/4”-Y must be provided to maintain accumulator hydraulic charge or unloading of high volume pump and prevent back flow when pump is unloaded.

Pressure Adjustment

Pressure can be adjusted by loosening a jam nut and turning an adjustment screw. Turning clockwise increases pressure, and turning counterclockwise decreases pressure.

Filtration

For the satisfactory service life of these components in industrial application, use full flow filtration to provide fluid which meets ISO cleanliness code 18/ 15 or cleaner.

ORDERING INFORMATION

PCV 14 - * - * - T - * - * - *

1 2 3 4 5 6 7 8

1. Model Code - PCV

2. Model Series - 14

3. Drain –

ED – Externally Drained

ID – Internally Drained

4. Nominal Valve Size -

• 06 – 3/4” pipe

• 10 – 1-1/4” pipe

5. Connections Type -

T = Threaded Connection -

6. Pressure Range -

DL = 350 - 1000 psi

DC = 500 - 2000 psi

RD = 1500 - 3000 psi

7. High Vent Spring -

V = Optional High Vent Spring Installed

Omit if not required

8. Design No – For 06 -10 (Subject to change)

For 10 -10 (Subject to change)

Typical Model Code :- PCV14- ED -06- T-DL-10 , PCV14- ID -06- T-DC-V-10

PCV14- ED -10- T-DL-10 , PCV14- ID -10- T-DC-V-10

Installation Data

Tank drain

Back pressure at the tank discharge port of the PCV14-ED series (externally drained) valves will not effect the operation at up to 85% of the inlet pressure. Back pressure at the tank discharge port of the PCV14-ID series (internally drained) valves must not exceed 5% of the inlet pressure.

Caution

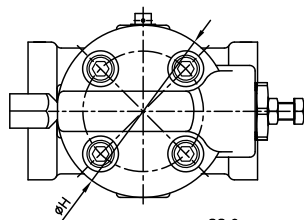
For series PCV14-ED only, the drain must be connected to tank through a surge free line so there will be no back pressure at this drain. Failure to connect drain can result in infinite system pressure and machine damage. Series PCV14-ID has internal drain and this port is not used.

Connections

Pressure inlet and outlet connections are connected by a through passage which permits use of either connection as an inlet.

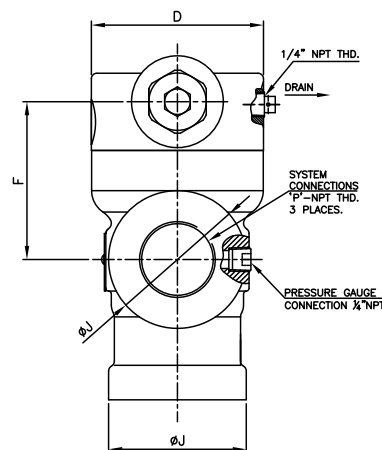
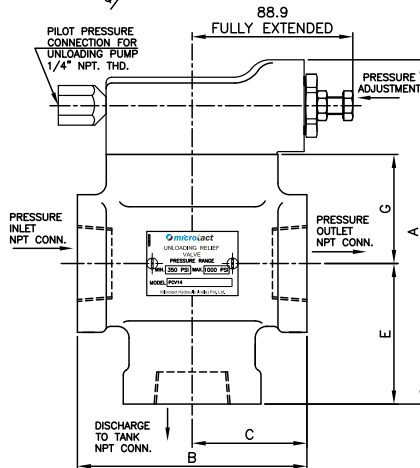
Approximate Minimum Venting Pressures psi at Various Percentages of Maximum Rated Capacity

MODEL	25%	50%	75%	100%
PCV14 - * - 06 - T - * - 10	10	11	15	23
PCV14 - * - 06 - T - * - V - 10	56	57	59	63
PCV14 - * - 10 - T - * - 10	6	10	23	39
PCV14 - * - 10 - T - * - V - 10	52	54	57	59



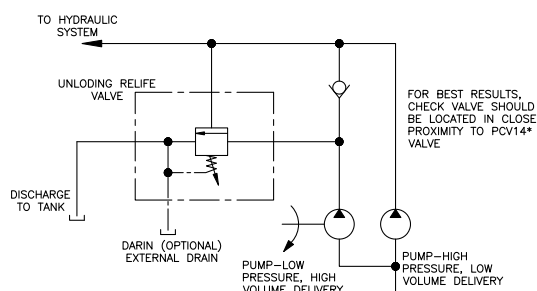
ALL DIMENSIONS ARE IN mm.

MODEL	'P' PIPING THD. SIZE	A	B	C	D	E	F	G	H	J
PCV14-* - 06 - T - 10	3/4" NPT.	159	108	54	76	65	68.3	46	76.2	57.2
PCV14-* - 10 - T - 10	1 1/4" NPT.	190.5	127	63.5	95.2	77.7	87.4	60.5	95.2	76.2



Typical Applications

Double Pump Circuit



Accumulator Circuit

