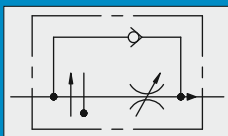
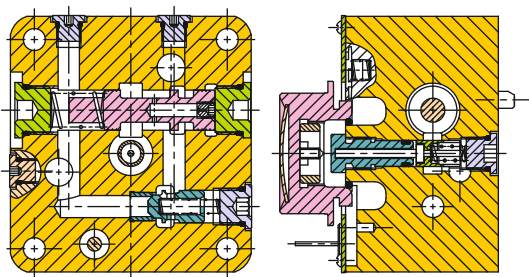


FLOW CONTROL VALVES (GASKET CONNECTION)



SERIES - FC2



Basic Characteristics

Operating Pressure (maximum) - 250 bar (3500 psi)

Minimum Pressure differential between inlet & outlet parts -

FC2 - 02 - G - 25 = 150 psi

FC2 - 02 - G - 5 = 100 psi

Nominal Reverse Free Flow -
57 L/min

Rated Capacity (maximum)

FC2 - 02 - G - 25 = 25 L/min

FC2 - 02 - G - 5 = 5 L/min

Seal Kit - VC90054

Mounting Subplate- VC20098

Approx. Weights

FC2 - 02 = 4.0 kg

General Description

These valves provide precise adjustable control of flow rates in Hydraulic circuits. They are pressure and temperature compensated to minimize flow variation due to changes in fluid pressure and temperature, they can be used in meter-in, meter-out and bleed off circuits.

Flow adjustment

Adjust flow rate by rotating dial. A lettered (A thru E) indicator marks approximately four and one half revolution from a fully closed to a fully open condition.

Maximum throttle openings may be limited by addition of spacers to the throttle shaft under the selector dial. Spacers are available for installation by the user.

Trim adjustment (optional) permits an adjustment of the flow setting when the valve locking device is in a locked position.

Clockwise rotation increases the flow and counter-clockwise decreases flow.

Filteration recommended

35 microns absolute

FC 2 - 02 - G * - * - 50 - *
 {1} {2} {3} {4} {5} {6} {7} {8}

1. Model Code - FC

2. Model Series - 2

3. Nominal Valve Size -
• 02 - 1/4" NPT

4. Connection Type -
G = Gasket Connection

5. Flow Capacity -

- 5 L/min
- 25 L/min

6. L - Lock Option (Omit for Std. Key)

7. Design No – 50 (Subject to change)

8. S10 - Special Features
(Omit if not required)

Typical Model Code :- **FC2-02-G-5-L-50-S10**
FC2-02-G-25-50

Valve locking

A standard key locking device (2 keys furnished) is supplied with these valves. an optional device is also available. Instead of using a key the valve is covered from its mounting to open the access hole which is in the front of the valve. The valve is then returned to its mounting and the new setting is made. Then the access hole cab be covered by using a screw driver in the key hole and turning clockwise to trip the lock. See preceding page and model code (L)

Special S10 Feature

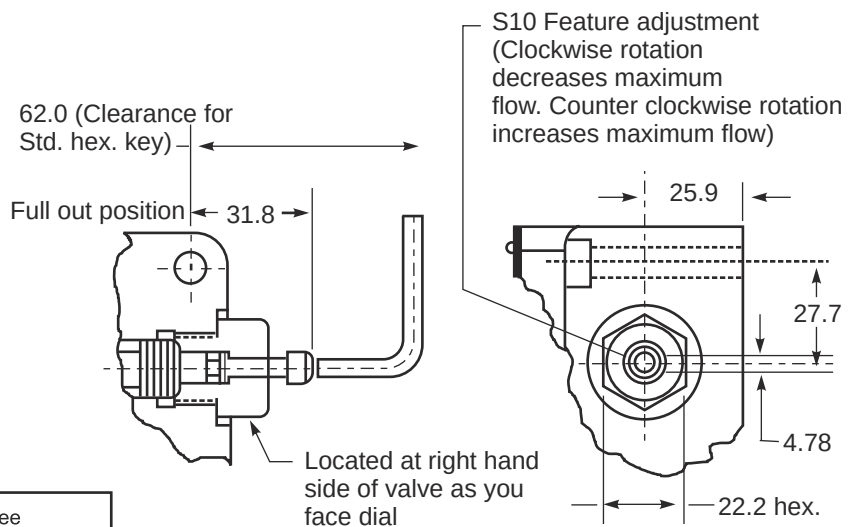
The flow control hydrostate under zero flow conditions is spring offset to its full open position. This permits an initial flow greater than the throttle setting and may result in a momentary over speed at the start of the feed cycle.

If this condition causes a problem in your application, it can be greatly reduced, by means of the S10 option.

The S10 features a screw which can be adjusted to limit the hydrostate opening to a point just above the maximum flow requirements of the system.

1) Back out the adjusting screw and operate the system in the feed mode. Adjust the throttle setting to the desired flow rate.

2) Turn in the adjusting screw until feed rate drops, then back out the adjusting screw just enough to restore the original feed rate. Screw will remain in this position.



Pressure drop information

Pressure drop for reverse free flow over check valve	
Volume (LPM)	PSI
19	45
38	120
57	175
76	300
95	450

1) The figures in the pressure drop chart give approximate pressure drops (ΔP) when passing flow of 100 SSU fluids having 0.865 specific gravity.

2) For any other viscosity(s) the pressure drop (ΔP_1) will change as follows :

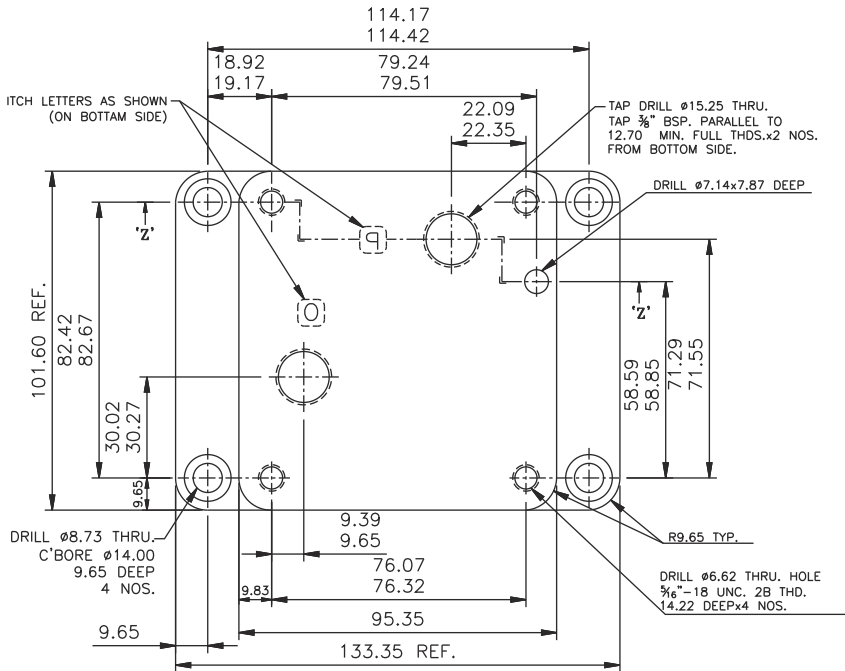
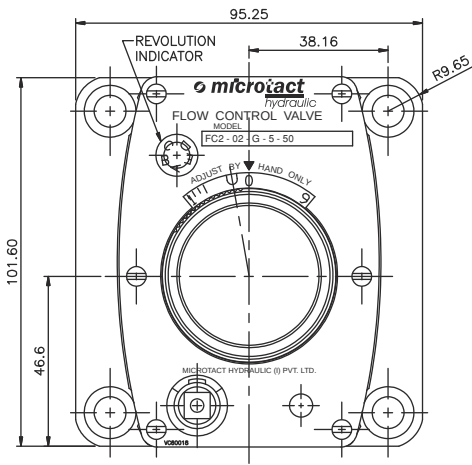
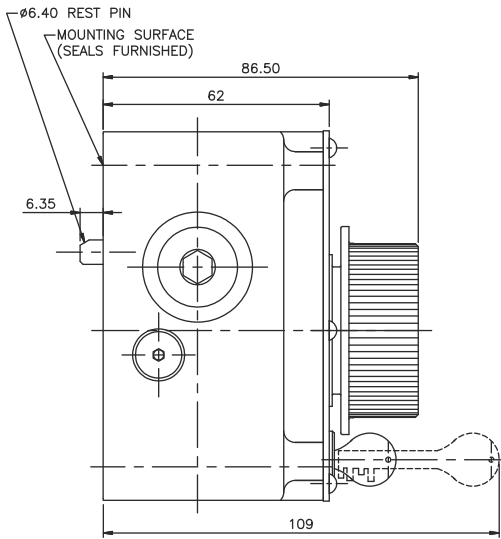
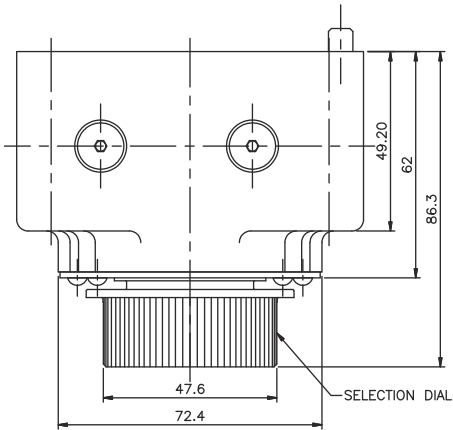
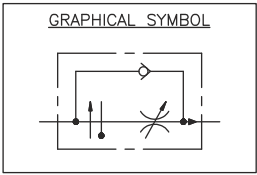
Other viscosity	% of (ΔP) from table (approximate)
75	93
150	111
200	119
250	126
300	132
350	137
400	141

3) For any other specific gravity (G_1) the pressure drop (ΔP_1) will be approximately $\Delta P_1 = \Delta P (G_1/G)$

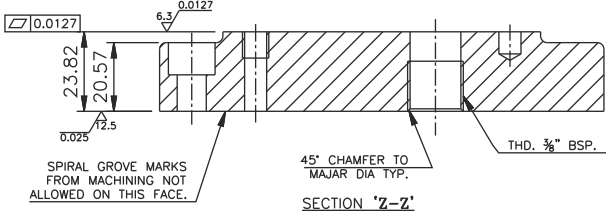
Specific gravity of fluid may be obtained from its producer for fire resistant fluids the value is higher than for oil.

Fluids and seals

The use of synthetic fire resistant fluids requires the use of special seals. See model code water glycol, water in oil emulsions and petroleum oil may be used with standard seals for hydraulic fluid and temperature recommendations.



MOUNTING SUBPLATE FOR
FC2-02 (VC20098)



Low flow pressure compensation,
Minimum to 1000 psi valve pressure drops

Model	Flow (cc/min)	Typical Variation	Maximum variation
FC2-02-G-5	33	5%	15%
FC2-02-G-5	165	3%	10%
FC2-02-G-25	165	8%	15%

Flow variation with temperature : 27°C to 66°C

Flow (LPM)	Average Variation	Maximum Variation
0.03	7.5%	15%
0.16	5.5%	10%
1.6	3.8%	7%
4.8	3.0%	5%
12.5	3.0%	5%
25	3.0%	5%

