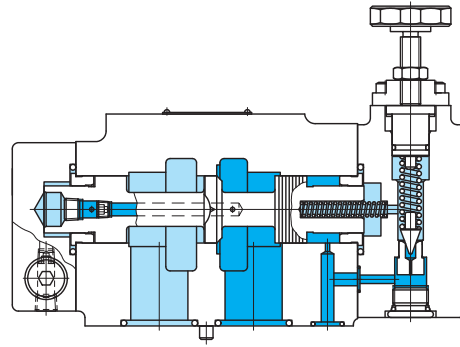


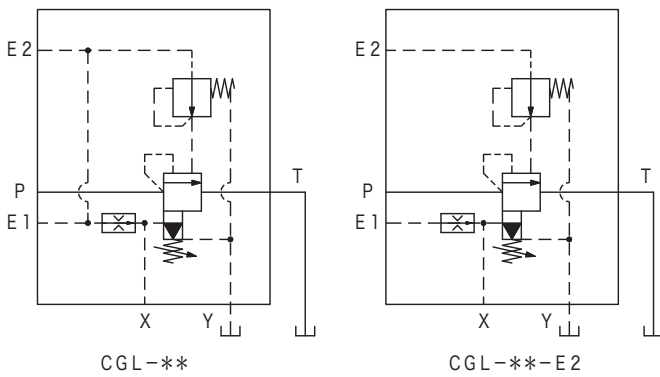
Low pressure control valves CGL

C
4-1

Pressure Control Valves



Functional Symbols



- This low pressure control valve provides stable control over the low pressure range from almost 0 MPa to 4 MPa.
- The E2 version enables 3 stage - all close, pressure control, all open - control by directing the pilot pressure to two pilot ports.
- Valve is ideal for low back pressure control of the injection cylinder of injection molding machines.

Model Code

(F3)-CGL-03-A-10-(E2)-Y-12

1 2 3 4 5 6 7 8

1 Hydraulic fluid

Omit: mineral oil based fluid, water-glycol based fluid
F3: phosphate ester fluid

2 Low pressure control valve (gasket mounting)

3 Size

Refer to "Specifications".

4 Max. adjustable pressure

Refer to "Specifications".

5 Pilot pressure

Refer to "Specifications".

6 Pilot port type (see functional symbols)

Omit: E1, E2 port (common)
E2: E1, E2 port (differentiated)

7 Drain

Omit: internal drain
Y: external drain (standard)

8 Design no.

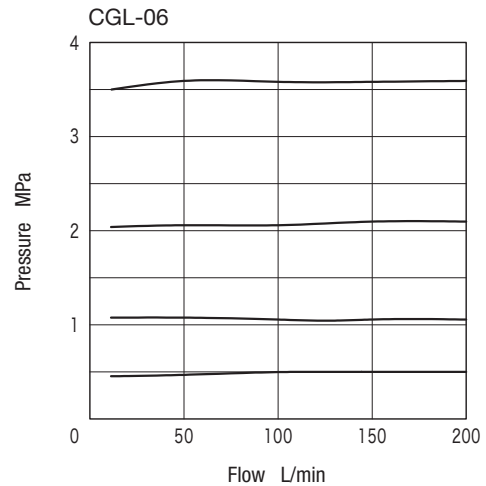
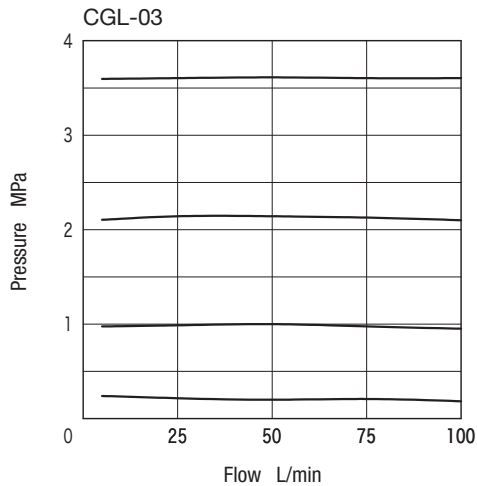
Specifications

Model Code	Size	Max. Working Pressure MPa	Rated Flow L/min	Max. Adjustable Pressure		Pilot Pressure		Minimum Pilot Flow L/min	Weight kg
				Code	MPa	Code	MPa		
CGL-03	03	21	90	A	4	10	Control Pressure Above +1.2	2	8.2
CGL-06	06		170			20	Control Pressure Above +2.4		

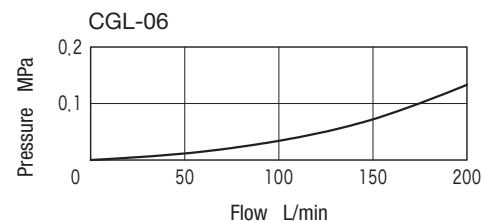
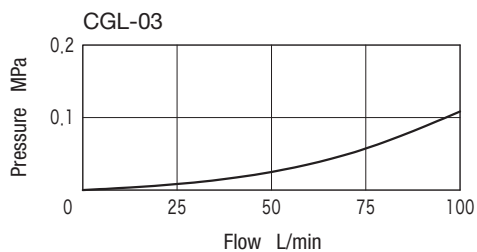
Note: Minimum adjustable pressure will differ with flow. See characteristics curves for reference.

Characteristics Curve (at 20 mm²/s) (typical examples)

● Flow-Pressure Characteristics



● Flow-Minimum Adjustable Pressure Characteristics



Notes on Operation

- For type E2, the relationship of pilot pressure to valve operation is as the following table.

E1 port condition	Pressure applied	Pressure applied	Release to tank
E2 port condition	Pressure applied	Release to tank	Pressure applied
Valve operation	Pressure control	All close	All open

- Do not connect piping of drain, tank, and piping of other tanks, each should be directly piped to tank. Ensure that end of the piping is always below the fluid level.
- Loosen the lock nut and turn adjustment handle clockwise to increase the setting pressure and counterclockwise to decrease the setting pressure.

Subplate

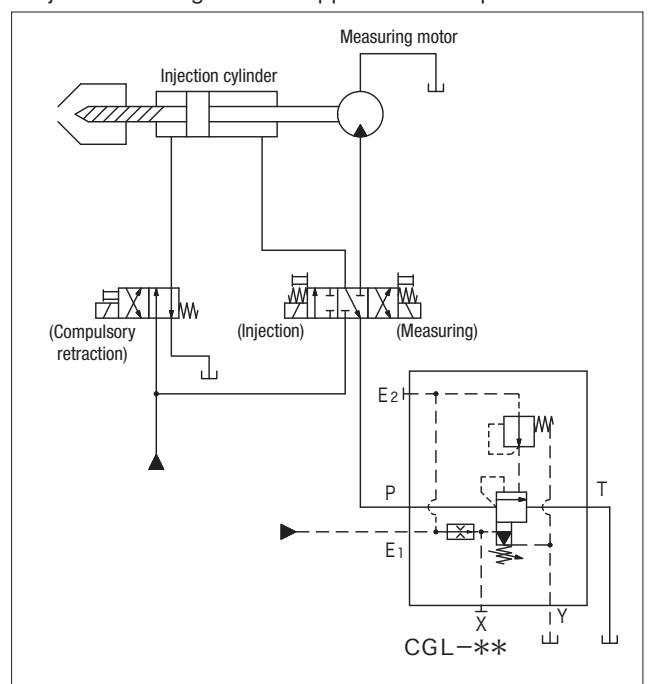
There is no subplate for this valve. Mount on manifold block for application.

Mounting Bolts (JIS B 1176, Strength Class 12.9)

Valve Model	Hex Socket Bolts	Qty
CGL-03	M12×90	4
CGL-06	M16×115	4

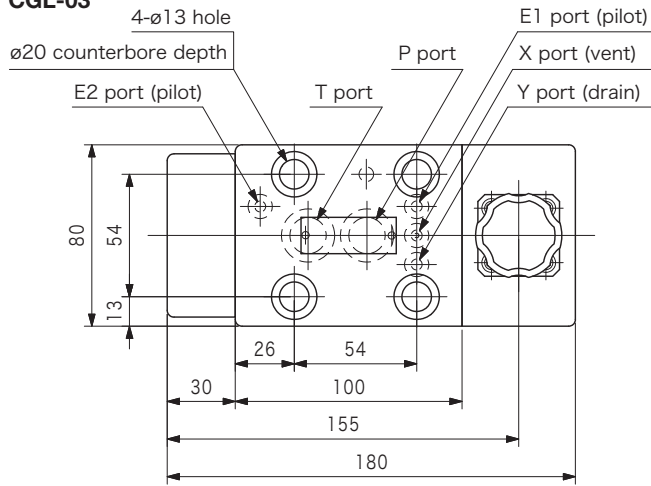
- Mounting bolts must be ordered separately.
- Mounting bolt tightening torque
CGL-03: 72 to 88 N·m
CGL-06: 90 to 110 N·m

● Injection Molding Machine Application Example

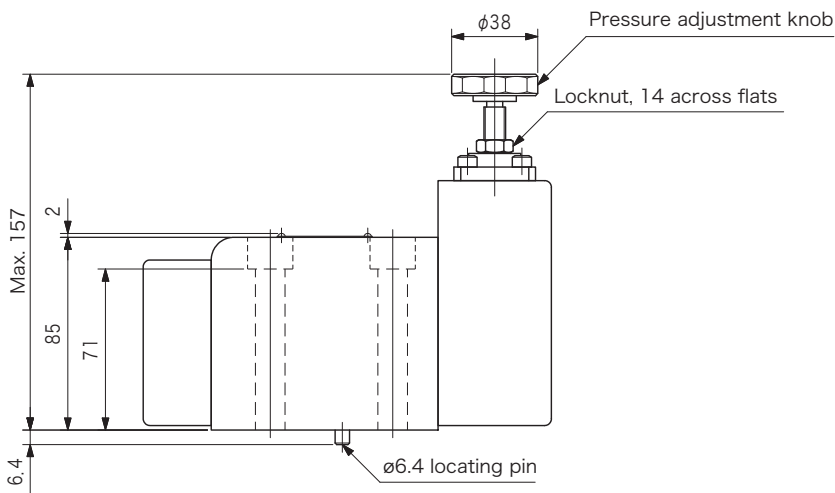
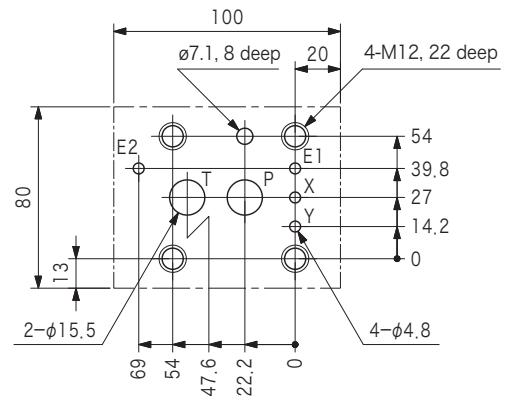


Dimensions

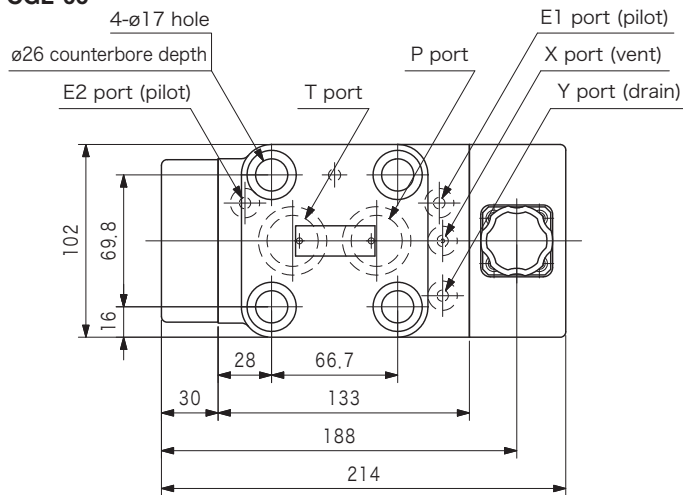
CGL-03



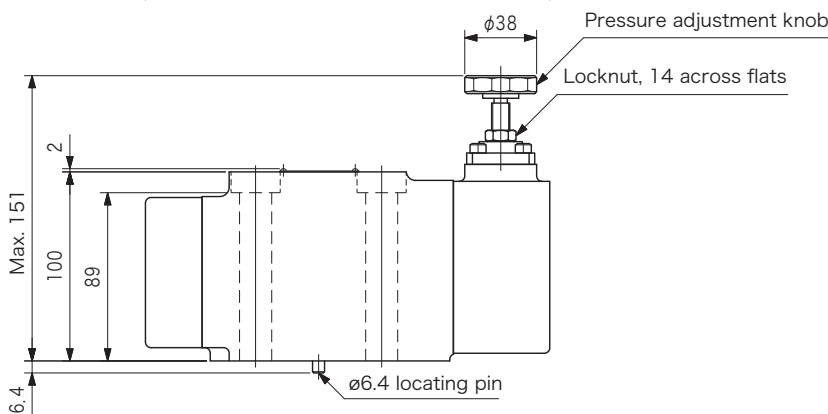
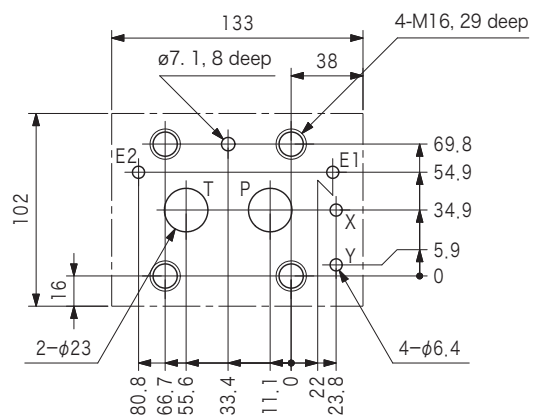
●Mounting dimensions

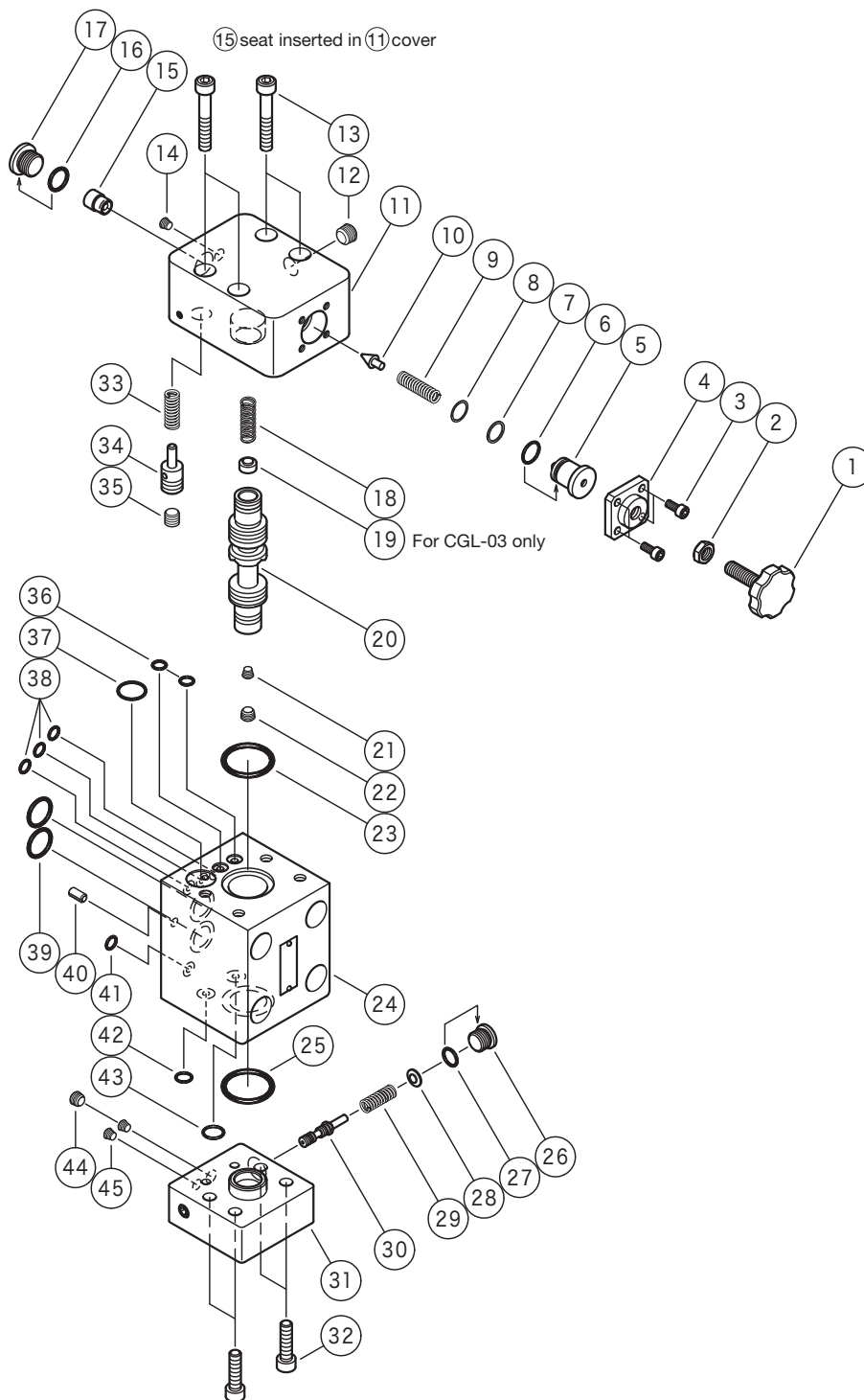


CGL-06



●Mounting dimensions





O-ring

Model Code	CGL-03			CGL-06		
No.	Part No.	Standard	Qty	Part No.	Standard	Qty
6	007901519	AS568-015 (NBR, Hs90)	1	007901519	AS568-015 (NBR, Hs90)	1
16	008001419	JIS B 2401 1B-P14	1	008001419	JIS B 2401 1B-P14	1
23	007921717	AS568-217 (NBR, Hs70)	1	007922117	AS568-221 (NBR, Hs70)	1
25	007921717	AS568-217 (NBR, Hs70)	1	007922117	AS568-221 (NBR, Hs70)	1
27	007990619	AS568-906 (NBR, Hs90)	1	007990619	AS568-906 (NBR, Hs90)	1
36	007901119	AS568-011 (NBR, Hs90)	2	007901219	AS568-012 (NBR, Hs90)	2
37	007901719	AS568-017 (NBR, Hs90)	1	007901719	AS568-017 (NBR, Hs90)	1
38	007901119	AS568-011 (NBR, Hs90)	3	007911119	AS568-111 (NBR, Hs90)	3
39	007911619	AS568-116 (NBR, Hs90)	2	007921719	AS568-217 (NBR, Hs90)	2
41	007901119	AS568-011 (NBR, Hs90)	1	007911119	AS568-111 (NBR, Hs90)	1
42	007901319	AS568-013 (NBR, Hs90)	1	007901319	AS568-013 (NBR, Hs90)	1
43	007901219	AS568-012 (NBR, Hs90)	1	007901219	AS568-012 (NBR, Hs90)	1