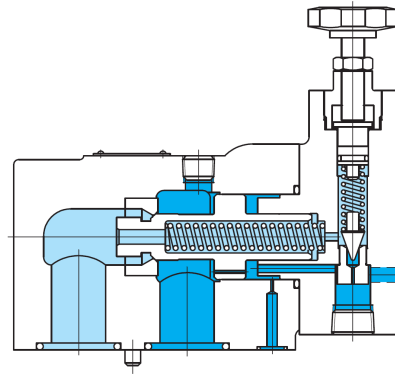
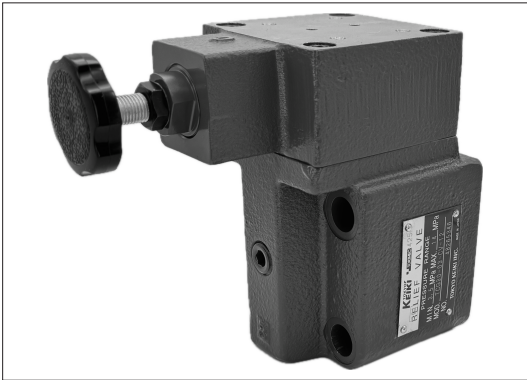
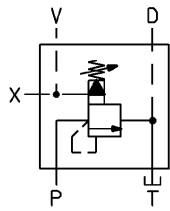


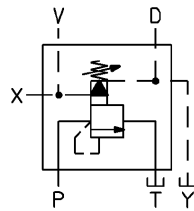
Relief valves TCG30



Functional Symbols



Standard



External Drain Type

- In addition to providing safety valve function which releases hydraulic fluid in the case of excessive pressure in the hydraulic circuit, this valve also provides good control of circuit.
- Pressure can be set in 2-3 stages by solenoid valve.
- Component valve for TCG50~80 assemblies.

Model Code

(F3) - TCG30 - 06 - (*) (V) (Y) (E)-(R/L) - 12

1

2

3

4

5

6

7

8

9

1 Hydraulic fluid

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

2 Relief valve (gasket mounting)

3 Size

Refer to "Specifications".

4 Max. adjustable pressure

Refer to "Specifications".

5 Vent pressure

Omit: low vent pressure (standard)
V: high vent pressure

6 Drain

Omit: internal drain (standard)
Y: external drain

7 Adjuster

Omit: knob (standard)
E: acorn nut, sq. head adjustment screw

8 Adjuster orientation

Omit: up (standard)

L: left

R: right

} See "Dimensions".

9 Design no.

TCG30-03: 12

TCG30-06: 12

TCG30-10: 12

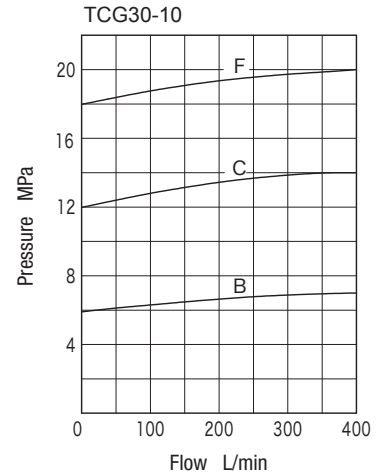
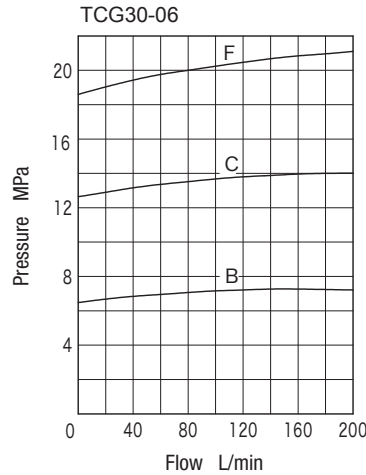
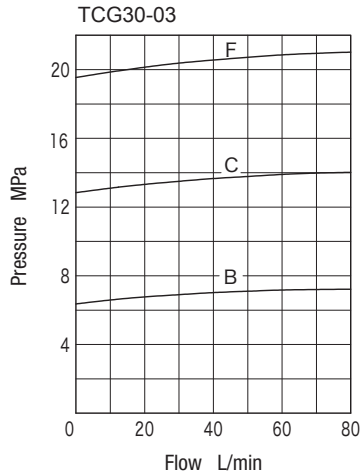
Specifications

Model Code	Size	Max. Working Pressure MPa	Max. Flow L/min	Max. Adjustable Pressure MPa	Weight kg
TCG30-03	03	21	80	A (V) : 3.5	4.8
TCG30-06	06		200	B (V) : 7 C (V) : 14	6.9
TCG30-10	10		400	F (V) : 21	10.5

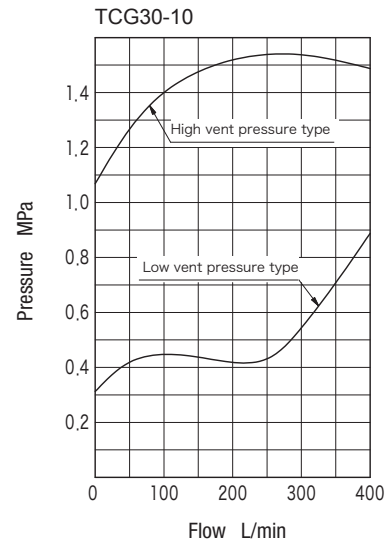
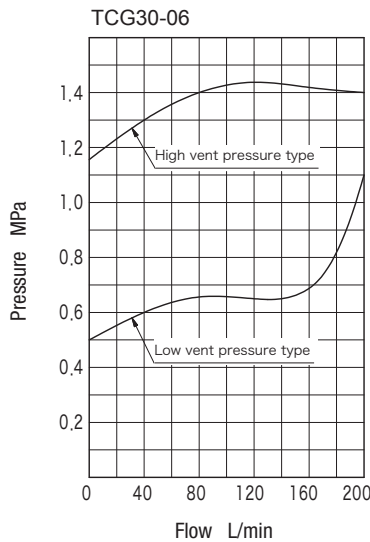
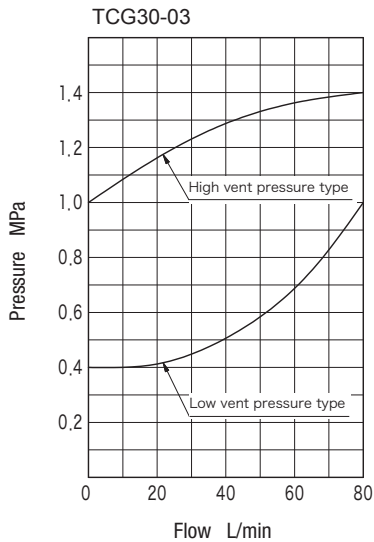
Note: Minimum adjustable pressure will differ with flow. See characteristics curves for reference.

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

● Flow-Pressure Characteristics



● Flow-Minimum Adjustable Pressure Characteristics



Notes on Operation

- Use external drain type (Y) in cases of high tank line pressure or large pressure fluctuations and connect drain line directly to tank. Ensure that end of the piping is always below the fluid level.
- For faster unload to onload response, use high vent pressure type (V).
- Pressure setting may be unstable in the case of low flow. Maintain minimum flows above the following.
TCG30-03 Series: 3 L/min
TCG30-06 Series: 5 L/min
TCG30-10 Series: 5 L/min
- Loosen the lock nut and turn handle clockwise to increase the setting pressure and counterclockwise to decrease the setting pressure.
- When using external drain type mounted on subplate, connect drain line directly from valve.

Mounting Bolts (JIS B 1176, Strength Class 12.9)

Valve Model	Hex Socket Bolts		Qty
	Metric Thread	Unified Thread	
TCG30-03	M12×80	1/2-13UNC×82.5	4
TCG30-06	M16×85	5/8-11UNC×82.5	4
TCG30-10	M20×100	3/4-10UNC×101.6	4

- Mounting bolts must be ordered separately.
- Mounting bolt tightening torque
TCG30-03: 72 to 88 N⋅m
TCG30-06: 90 to 110 N⋅m
TCG30-10: 180 to 220 N⋅m

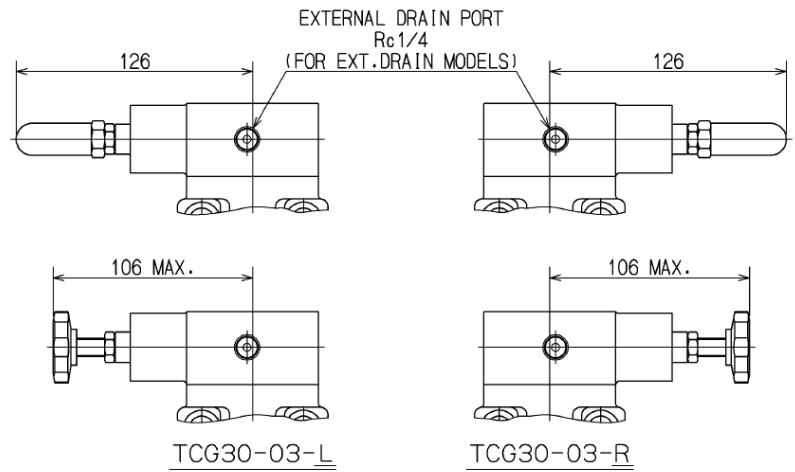
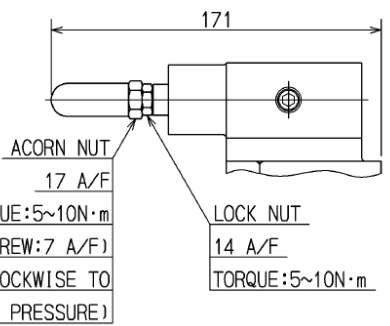
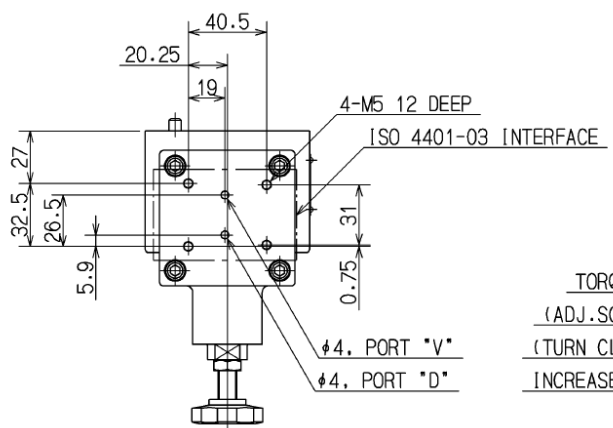
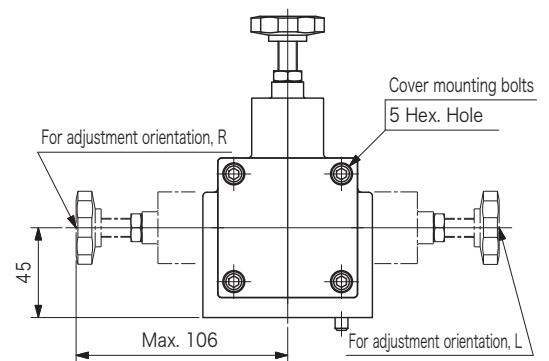
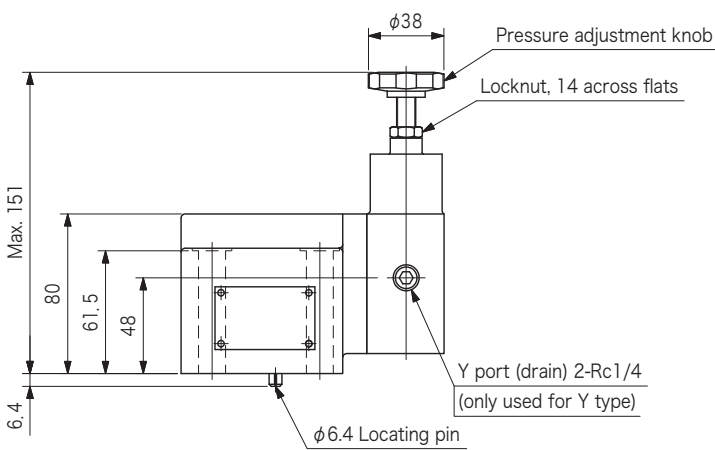
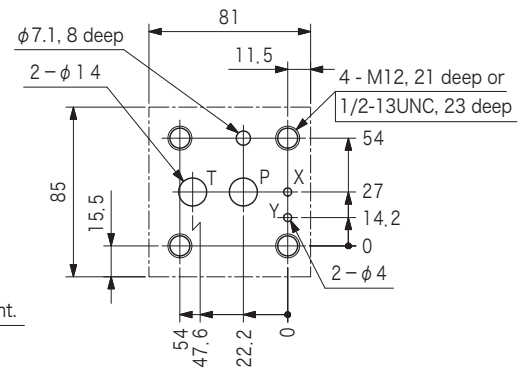
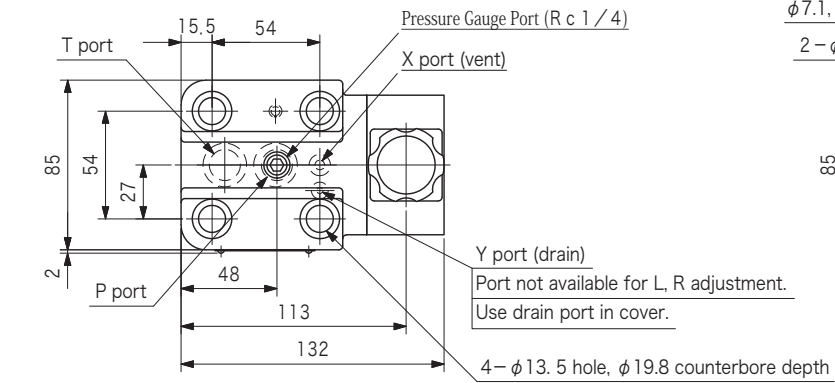
Subplate

Valve Model	Subplate	Connection Port Dia. Rc
TCG30-03	TCGMT-03-10-JA-J	3/8
TCG30-06	CGM-06-10-JA-J	3/4
TCG30-10	CGM-10-10-JA-J	1-1/4

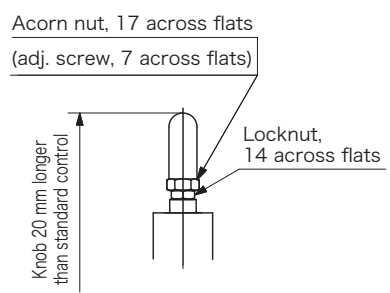
- Subplate must be ordered separately.
- Hex socket bolts for mounting valve included (unified thread).
- See page R6-2 for dimensions.

TCG30-03

●Mounting dimensions



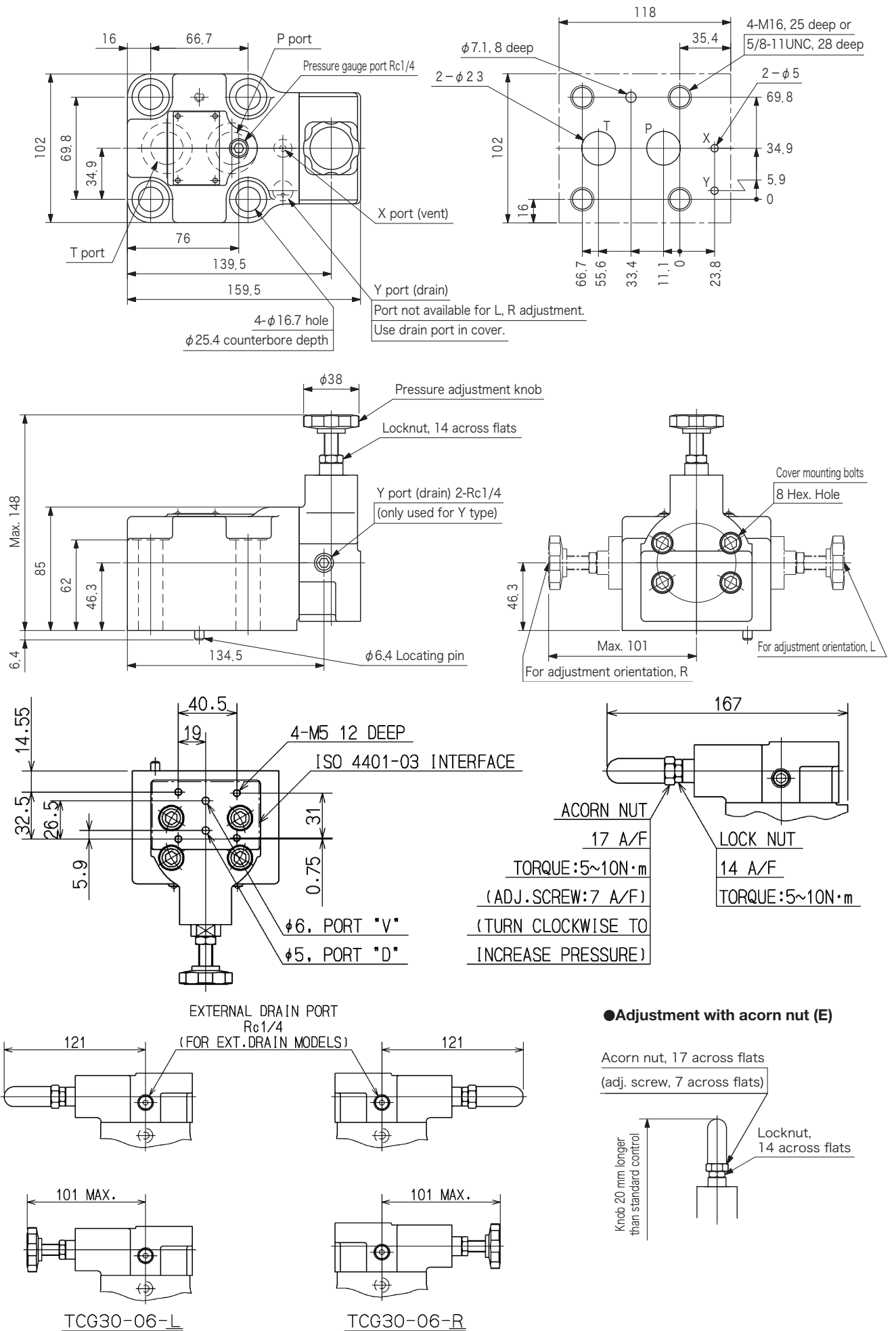
●Adjustment with acorn nut (E)



Dimensions

TCG30-06

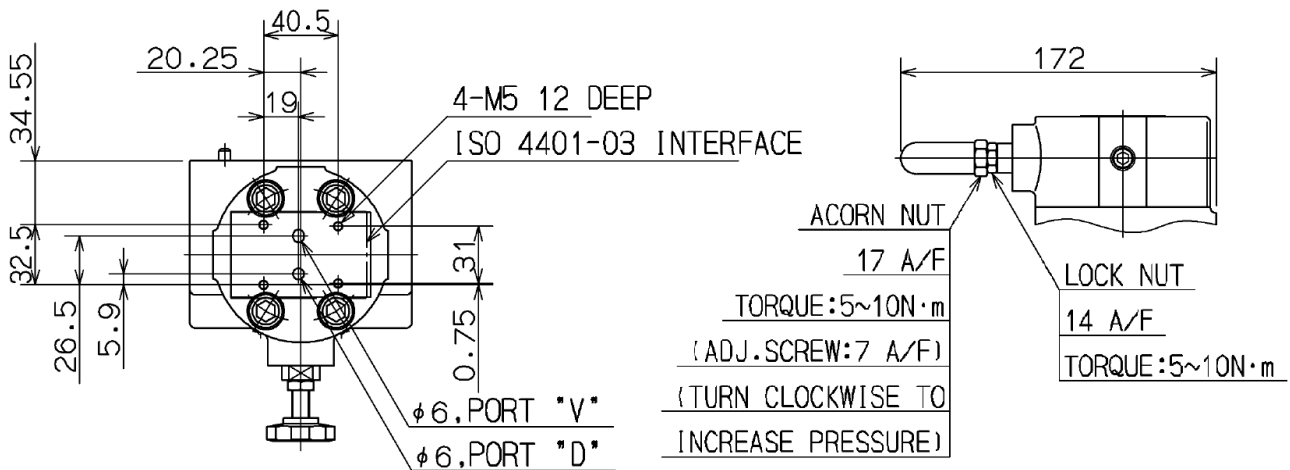
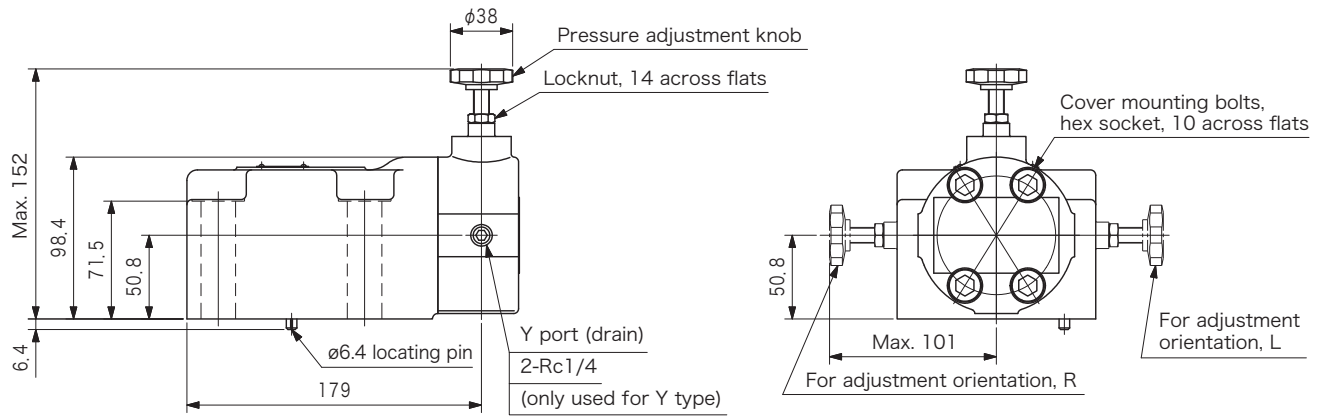
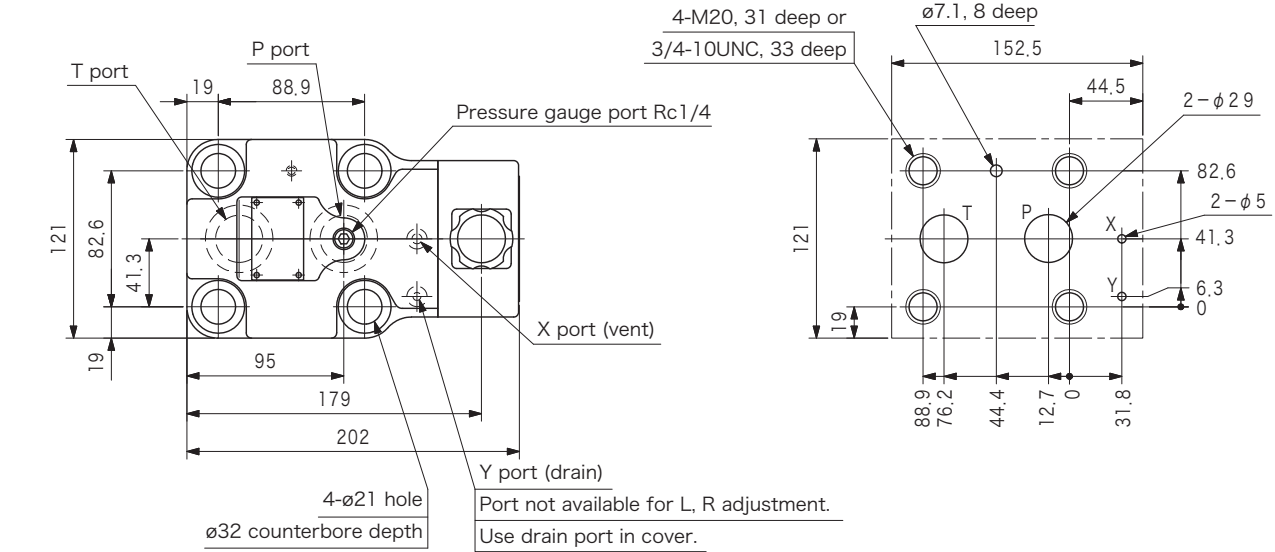
● Mounting dimensions



Dimensions

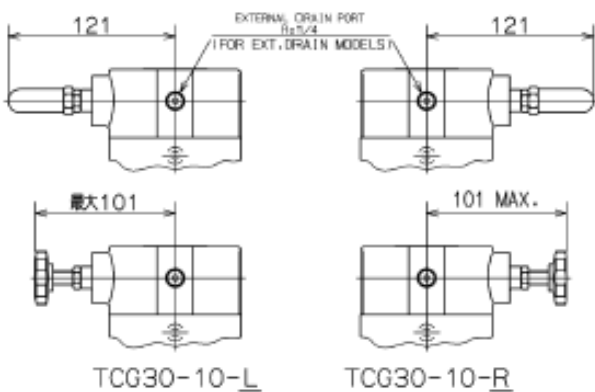
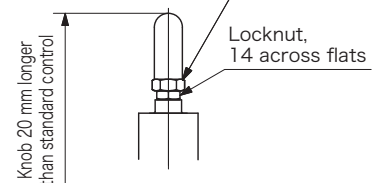
TCG30-10

●Mounting dimensions



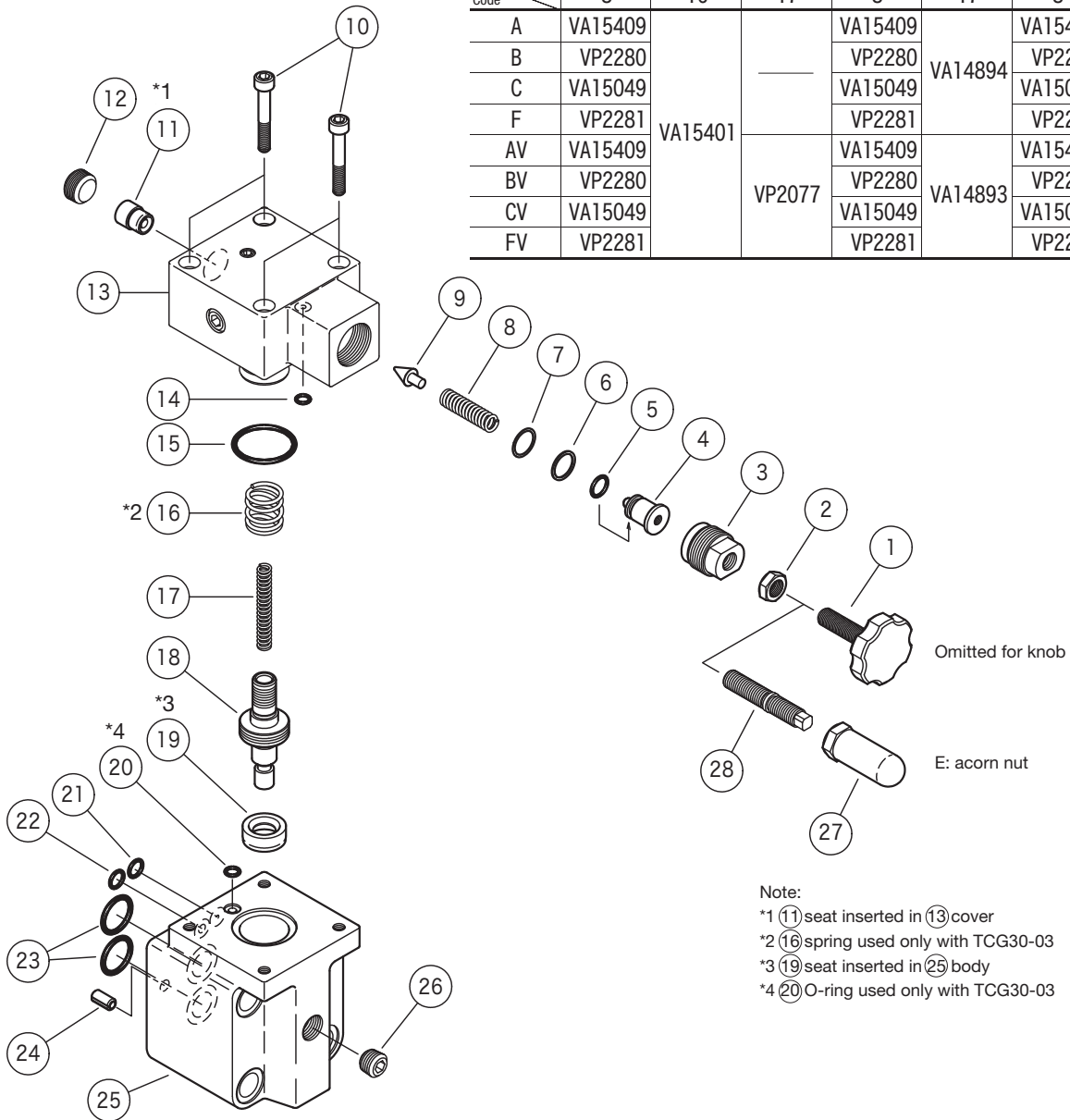
●Adjustment with acorn nut (E)

Acorn nut, 17 across flats (adj. screw, 7 across flats)



Spring

Model Code	TCG30-03			TCG30-06		TCG30-10	
	No.	8	16	8	17	8	17
A	VA15409	VA15401	VP2077	VA15409	VA14894	VA15409	VA15105
B	VP2280			VP2280			
C	VA15049			VA15049			
F	VP2281			VP2281			
AV	VA15409			VA15409	VA14893	VA15409	VA16509
BV	VP2280			VP2280			
CV	VA15049			VA15049			
FV	VP2281			VP2281			



Note:
 *1 (11) seat inserted in (13) cover
 *2 (16) spring used only with TCG30-03
 *3 (19) seat inserted in (25) body
 *4 (20) O-ring used only with TCG30-03

TCG30-03

No.	Part No.	Qty	
		Standard	Y Type
5	007901217	1	1
14	007900919	—	1
15	007912219	1	1
20	007900919	1	1
21	007901119	—	1
22	007901119	1	1
23	007911519	2	2

TCG30-06

No.	Part No.	Qty	
		Standard	Y Type
5	007901217	1	1
14	007900819	—	1
15	VA11168	1	1
21	007911019	—	1
22	007901219	1	1
23	007921619	2	2

TCG30-10

No.	Part No.	Qty	
		Standard	Y Type
5	007901217	1	1
14	007901219	—	1
15	007922419	1	1
21	007901219	—	1
22	007901219	1	1
23	007922019	2	2