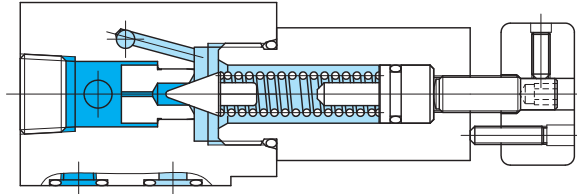
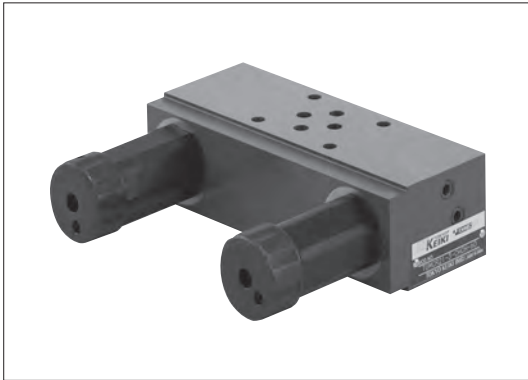


# Remote control relief valves TGMCR-3

C  
7-1

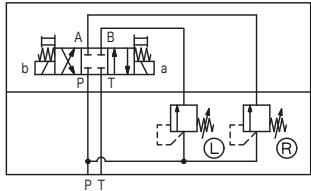
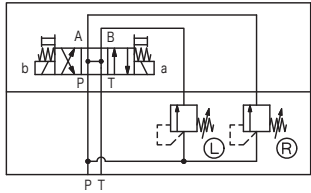
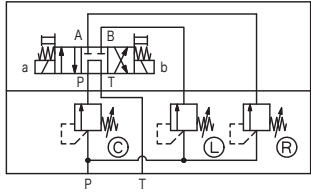
Pressure Control Valves



- Used for 2 pressure, 2 pressure & unload, and 3 pressure multistage control by connecting to remote control vent port of relief valve, and by stacking with DG4V-3 solenoid valve.

## Functional Symbols and Control Functions

Model Code	Control Function	Functional Symbol
TGMCR10	2 pressure & unload • Solenoid deenergized for unload • Solenoid a energized for remote pressure setting • Solenoid b energized for setting pressure of main valve	
	2 pressure control • Solenoid deenergized for remote pressure setting • Solenoid energized for setting pressure of main valve	
	2 pressure control • Solenoid deenergized for setting pressure of main valve • Solenoid energized for remote pressure setting	
TGMCR11	2 pressure & unload • Solenoid deenergized for unload • Solenoid a energized for setting pressure of main valve • Solenoid b energized for remote pressure setting	
	2 pressure control • Solenoid deenergized for setting pressure of main valve • Solenoid energized for remote pressure setting	
	2 pressure control • Solenoid deenergized for remote pressure setting • Solenoid energized for setting pressure of main valve	

Model Code	Control Function	Functional Symbol
TGMCR21	3 pressure control • Solenoid deenergized for setting pressure of main valve • Solenoid a energized for remote (L) setting pressure • Solenoid b energized for remote (R) setting pressure	
	2 pressure & unload • Solenoid deenergized for unload • Solenoid a energized for remote (L) setting pressure • Solenoid b energized for remote (R) setting pressure • remote (L) and (R) free setting pressure	
TGMCR30	3 pressure control • Solenoid deenergized for remote (C) setting pressure • Solenoid a energized for remote (L) setting pressure • Solenoid b energized for remote (R) setting pressure • remote (C), (L), (R) free setting pressure	

Note:

- (C), (L), (R) in the symbols indicate position of adjustment section. (See "Dimensions".)
- Solenoid directional valve, DG4V-3, is not included.
- Always use with main valve setting pressure greater than setting pressure of this valve.

Model Code

(F3)-TGMCR30-3-CHBHFH-60

- 1 2 3 4 5 6 7 8 9 10 11

- 1 Hydraulic fluid  
Omit: mineral oil based fluid, water-glycol based fluid  
F3: phosphate ester fluid
- 2 Remote control relief module
- 3 Control function (see Functional Symbols)  
10: B line, 2 pressure control (and unload)  
11: A line, 2 pressure control (and unload)  
21: A, B line, 2 pressure control and unload or 3 pressure control  
30: P, A, B line, 3 pressure control
- 4 Mounting dimensions  
3: ISO 4401-03
- 5 R side max. adjustable pressure  
Refer to "Specifications".
- 6 R side adjuster  
H: knob  
E: acorn nut, hex head adjustment screw (standard)
- 7 C side max. adjustable pressure  
Refer to "Specifications".
- 8 C side adjuster  
H: knob  
E: acorn nut, hex head adjustment screw (standard)

- 9 L side max. adjustable pressure  
Refer to "Specifications".
- 10 L side adjuster  
H: knob  
E: acorn nut, hex head adjustment screw (standard)
- 11 Design no.

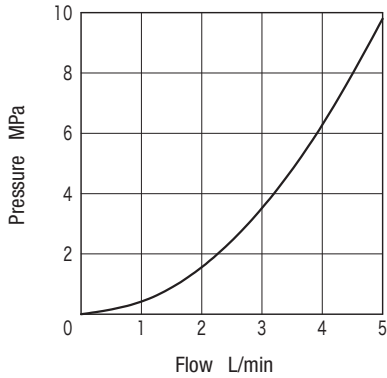
Specifications

Model Code	Size	Max. Working Pressure MPa	Rated Flow L/min	Max. Adjustable Pressure		Weight kg
				Code	MPa	
TGMCR10	02	21	1.7	A	3.5	10/11:2.0 21:2.8 30:2.9
TGMCR11				B	7	
TGMCR21				C	14	
TGMCR30				F	21	

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

## Characteristics Curve (at 20 mm<sup>2</sup>/s) (typical examples)

### ● Pressure Drop Characteristics (Flow–Minimum Adjustable Pressure Characteristics)



### Mounting Bolts (JIS B 1176, Strength Class 12.9)

- When DG4V-3 solenoid valve is mounted  
Hex socket bolts M5×90 ..... 4 pcs
- Mounting bolts must be ordered separately.
- Tightening torque of mounting bolts: 7 to 8 N·m

## Notes on Operation

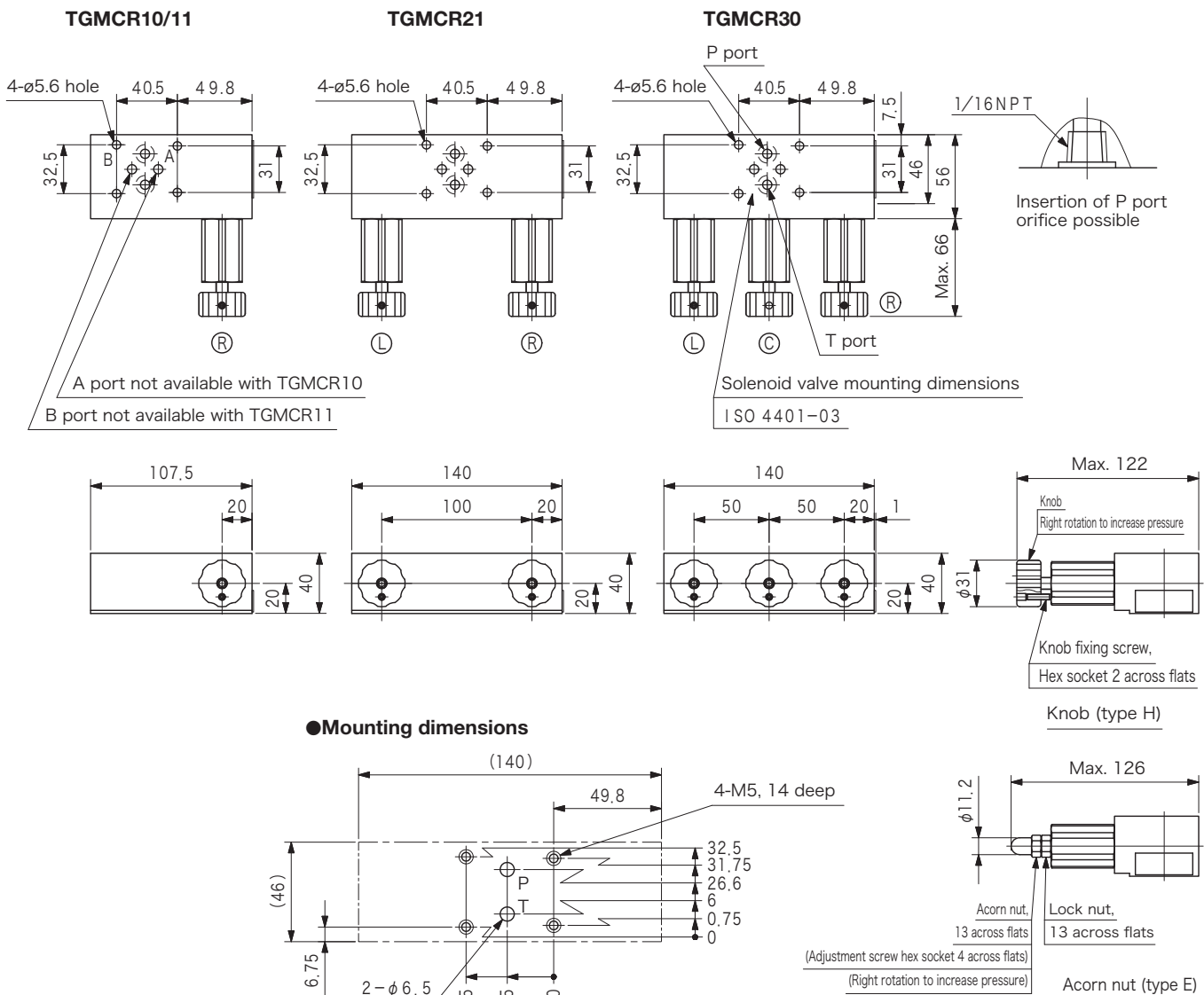
- Do not connect piping of tank port and piping of other tanks, each should be directly returned to tank. Ensure that end of the piping is always below the fluid level.
- When the piping to the main valve is lengthy resulting in a high displacement in the pipe line, the control pressure may become unstable.
- Loosen the knob fixing screw and turn handle clockwise to increase the setting pressure and counterclockwise to decrease the setting pressure.
- For TGMCR10, 11 and TGMCR21 three pressure control, ensure that the main valve is set at the highest pressure.
- With TGMCR30 and TGMCR21 two pressure control and unload, either close the main valve or raise sufficiently setting pressure of the TGMCR.

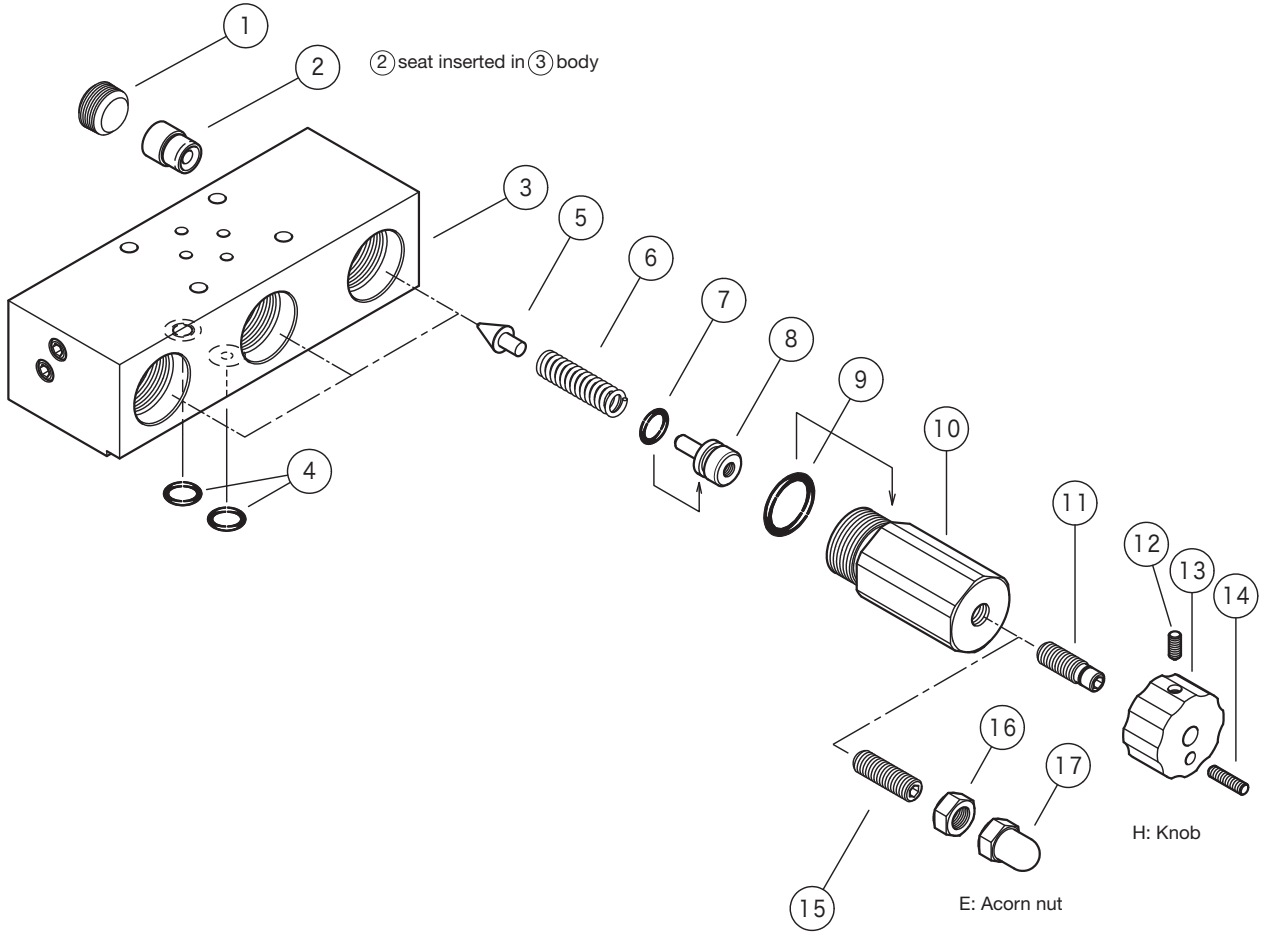
## Subplate

Connection Port Orientation	Subplate	Connection Port Diameter Rc
Bottom Piping	DGVM-3-10-T-JA-J	3/8
Side Piping	DGMS-3-1E-10-T-JA-J	

- Subplate must be ordered separately.
- Mounting bolts are not included.
- See page R6-6 for dimensions.

## Dimensions





⑥ Spring

Code	Part No.
A	VA15409
B	VP2280
C	VA15049
F	VP2281

No.	Name	Part No.	Standard	Quantity		
				TGMCR 10/11	TGMCR 21	TGMCR 30
4	O-ring	007901219	AS568-012 (NBR, Hs90)	2	2	2
7	O-ring	007901219	AS568-012 (NBR, Hs90)	1	2	3
9	O-ring	007991019	AS568-910 (NBR, Hs90)	1	2	3

Note: TGMCR10/11, one pressure adjuster; TGMCR21, two pressure adjusters; TGMCR30, three pressure adjusters.