

Relief Valve

20 to 380 ℓ /min
21MPa

Features

- ① Balanced piston relief valve.
- ② Optimum pressure control for hydraulic circuit allows operation as a safety valve.
- ③ A vent port enables remote control of pressure and use of an unloading circuit.

Specifications

Model No.		Nominal Diameter (Size)	Maximum Working Pressure MPa(kgf/cm ²)	Maximum Flow Rate ℓ /min	Pressure adjustment range MPa(kgf/cm ²)	Weight kg	
Screw Mounting	Gasket Mounting					T Type	G Type
R-T03- A-12 B-12	R-G03- A-12 B-12	3/8	21{214} P, X (Vent Ports)	20	* to 1{* to 10.2} * to 2.5{* to 25.5}	3.0	4.3
R-T03- 1-12 3-12	R-G03- 1-12 3-12	3/8		80	* to 7{* to 71.4} 3.5 to 21{35.7 to 214}	3.0	4.3
R-T06- 1-20 3-20	R-G06- 1-20 3-20	3/4		170	* to 7{* to 71.4} 3.5 to 21{35.7 to 214}	3.9	5.3
R-T10- 1-20 3-20	R-G10- 1-20 3-20	1 1/4		380	* to 7{* to 71.4} 3.5 to 21{35.7 to 214}	7.7	7.7

Note) See the Flow Rate - Low Pressure characteristics for information about items marked with an asterisk (*).

● Handling

- ① To adjust pressure, loosen the lock nut and then rotate the handle clockwise (rightward) to increase pressure or counterclockwise (leftward) to decrease it.
- ② Make sure that tank port back pressure is no greater than 0.2MPa {2.0kgf/cm²}. For tank piping of the A and B type pressure adjusting ranges, return directly to the tank without connecting any other piping and eliminate back pressure.
- ③ The pressure adjustment range for the high vent type is 1.3MPa {13.3kgf/cm²}. Note that R-T/G03 is not a high vent type.
- ④ When using a relief valve as a safety valve, use a pressure override that is higher than the required circuit pressure.
- ⑤ When using a remote control valve, connect piping to the relief valve port. Pipe capacity can be a source of vibration. Use of thick iron pipe with an inside diameter of no more than 4mm and a connection length of no more than three meters is recommended.
- ⑥ Pressure becomes unstable when at slow control flow rates. Use a flow rate of no less than 8 ℓ /min for the 03, 06 sizes, and 10 ℓ /min for the 10 size. Use a drain type

relief valve in the case of a flow rate that is less than the minimum flow rate.

- ⑦ Use the following table for specification when a sub plate is required.

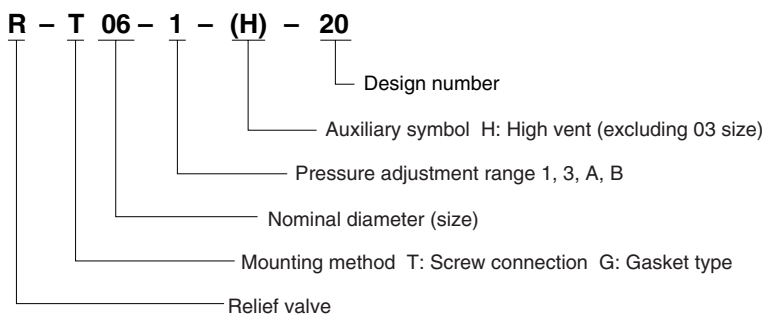
Model No.	Pipe Diameter	Weight kg	Applicable Pump Model
MR-03-10	3/8	1.6	R-G03-*12
MR-06-20	3/4	3.5	R-G06-*20
MR-06X-20	1		
MR-10-20	1 1/4	8.5	R-G10-*20
MR-10X-20	1 1/2		

- ⑧ The following are the bundled mounting bolts.

Model No.	Bolt Dimensions	Qty	Tightening Torque N·m(kgf·cm)
R-G03-*12	M10 × 75 ℓ	4	45 to 55 {460 to 560}
R-G06-*20	M16 × 80 ℓ	4	190 to 235 {1940 to 2400}
R-G10-*20	M20 × 105 ℓ	4	370 to 460 {3770 to 4690}

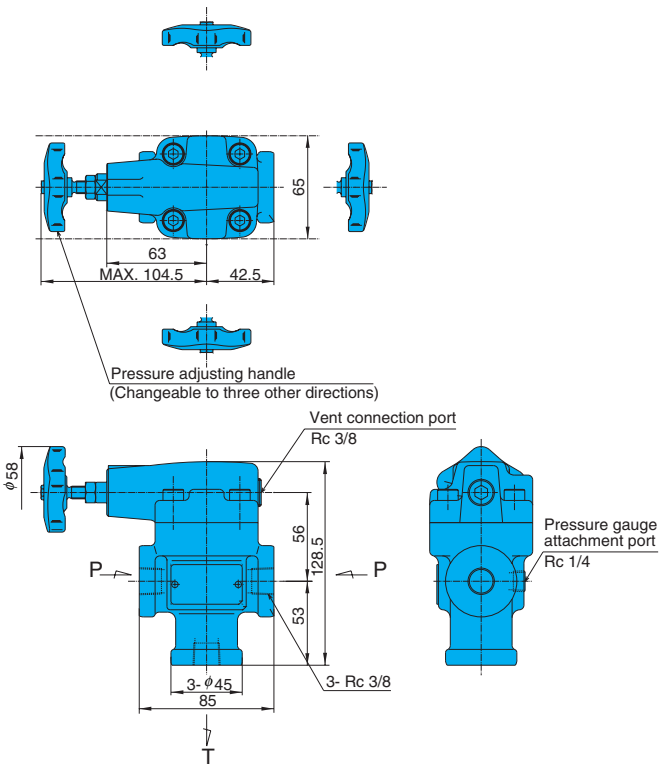
Note) For mounting bolts, use 12T or equivalent.

Understanding Model Numbers

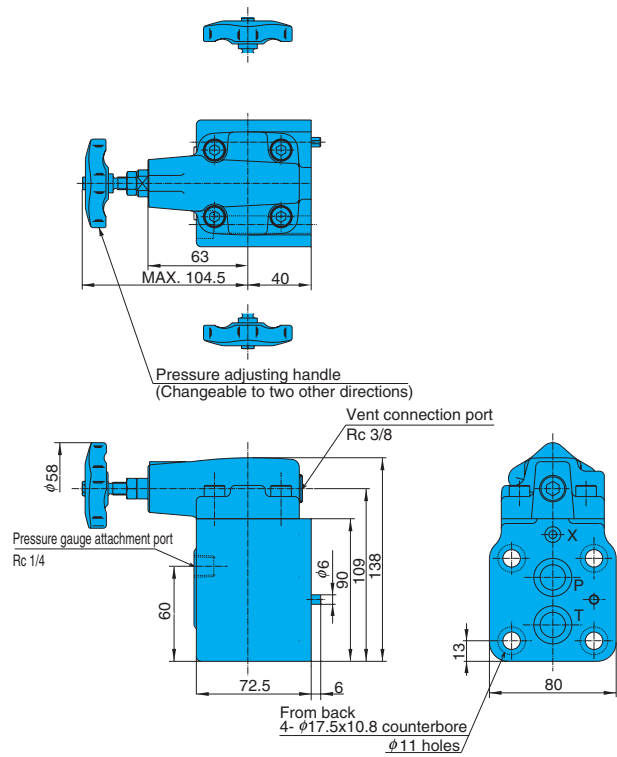


Installation Dimension Drawings

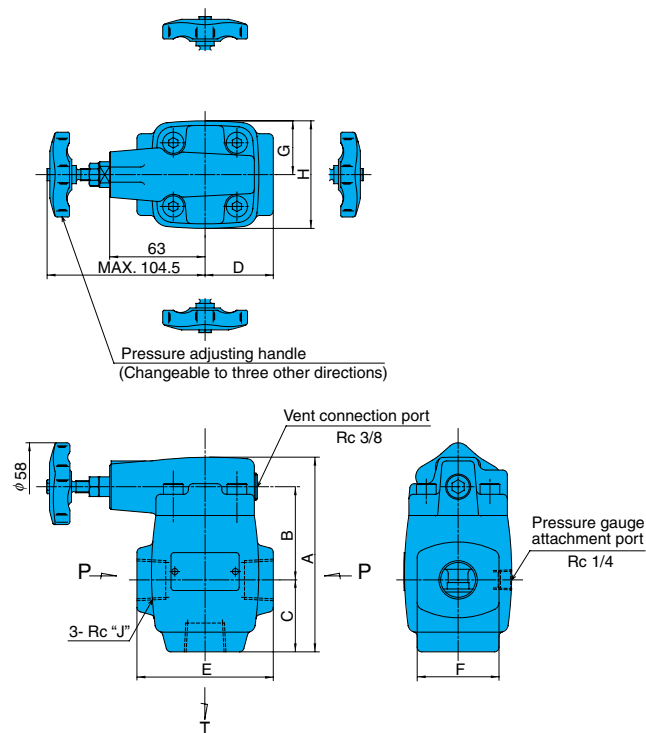
R-T03-*-12 (Screw Mounting)



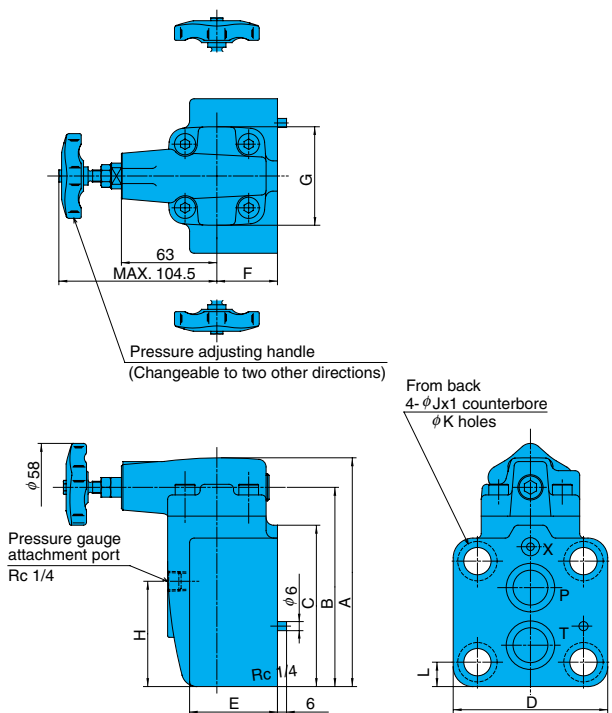
R-G03-*-12 (Gasket Mounting)



R-T**-*-20 (Screw Mounting)



R-G**-*-20 (Gasket Mounting)



Model No.	A	B	C	D	E	F	G	H	J
R-T06-*-20	128.5	61.5	47.5	45	90	54	35.5	71	3/4
R-T10-*-20	153.5	72	62	62.5	125	69	47	94	1 1/4

Model No.	A	B	C	D	E	F	G	H	J	K	L
R-G06-*-20	151	131.5	106.5	102	58	40	65	69.5	26	18	16.1
R-G10-*-20	162.5	143	110	127	80	50	86	70.5	32	22	17.7