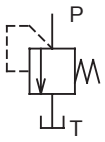
NACHI

BALANCED PISTON TYPE
RELIEF VALVE (WITH ISO TYPE)

RI Series Relief Valve
(ISO Mounting, Balanced Piston Type)

40 to 320ℓ/min
35MPa



Features

①High pressure capacity balanced piston relief valve.
②Optimum pressure control for hydraulic circuit allows operation as a safety valve.
③A vent port enables remote control of pressure and use of an unloading circuit.
④ISO standard mounting service (see table below).

Specifications

Model No. Gasket Mounting	Nominal Diameter (Size)	Maximum Working Pressure MPa{kgf/cm²}	Maximum Flow Rate ℓ/min	Pressure adjustment range MPa{kgf/cm²}	Weight kg	Gasket Surface Dimensions
RI-G03-C-20	3/8	35 {357} P, X Ports	40	0.15 to 3.5 {1.5 to 35.7}	4.5	ISO 6264-06-09-0-97
RI-G03-1-20 3 5	3/8		150	0.8 to 7 { 8.2 to 71.4} 3.5 to 25 {35.7 to 255 } 3.5 to 35 {35.7 to 357 }	4.5	
RI-G06-1-20 3 5	3/4		320	0.8 to 7 { 8.2 to 71.4} 3.5 to 25 {35.7 to 255 } 3.5 to 35 {35.7 to 357 }	5.6	ISO 6264-08-13-0-97

●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}.

3 For use as a safety valve, use a pressure override that is higher than the required circuit pressure.

4 When using a remote control valve, connect piping to the relief valve port. Pipe capacity can cause 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.

5 The following are the bundled mounting bolts.

Model No.	Bolt Dimensions	Q'ty	Tightening Torque N·m{kgf·cm}
RI-G03-*-20	M12×50ℓ	4	75 to 95 {765 to 970}
RI-G06-*-20	M16×60ℓ	4	190 to 235 {1940 to 2400}

Note) For mounting bolts, use bolts of 12.9 strength classification or equivalent.

6 A small control flow rate can cause pressure instability. Use a control flow rate that is at least 8 ℓ/min. 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
MRI-03-10	3/8	2.6	RI-G03
MRI-03X-10	1/2		
MRI-06-10	3/4	3.5	RI-G06
MRI-06X-10	1		

Explanation of model No.

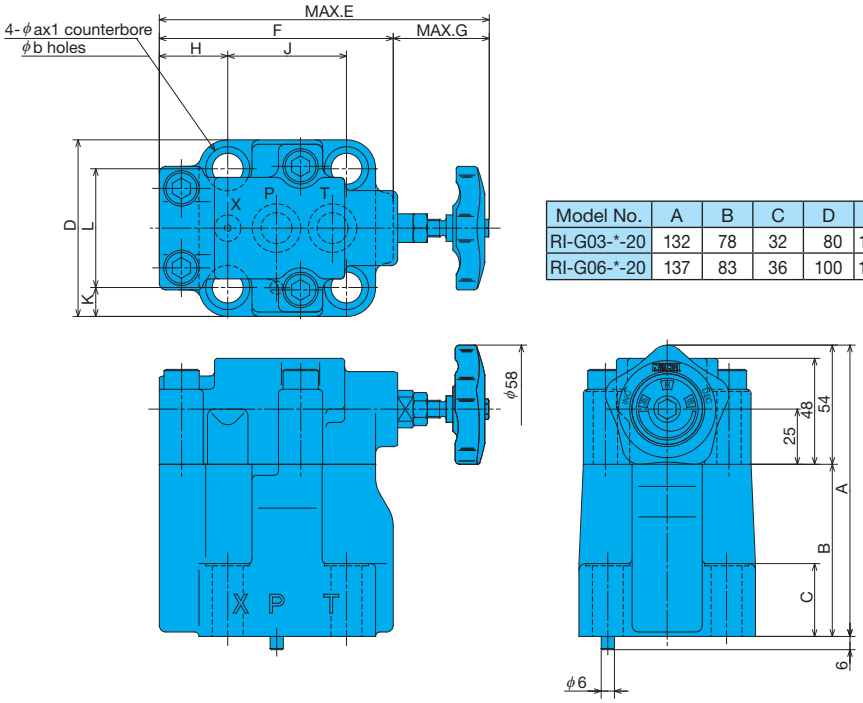
RI – G 06 – 1 – 20

- 20 — Design number
- 1 — Pressure adjustment range C, 1, 3, 5
- 06 — Nominal diameter (size)
- G — Mounting method G: Gasket type
- RI — RI series relief valve

F
Pressure Control Valve

Installation Dimension Drawings

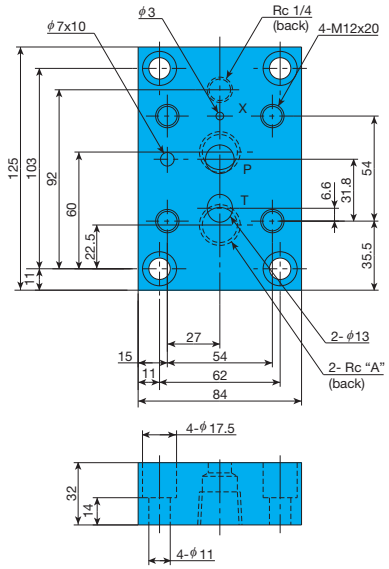
RI-G**-*-20



Model No.	A	B	C	D	E	F	G	H	J	K	L	a	b
RI-G03-*-20	132	78	32	80	149.5	106	43.5	31	53.8	13.1	53.8	20	14
RI-G06-*-20	137	83	36	100	158.5	119	39.5	37	66.7	15	70	26	17.5

Sub Plate MRI-03*-10

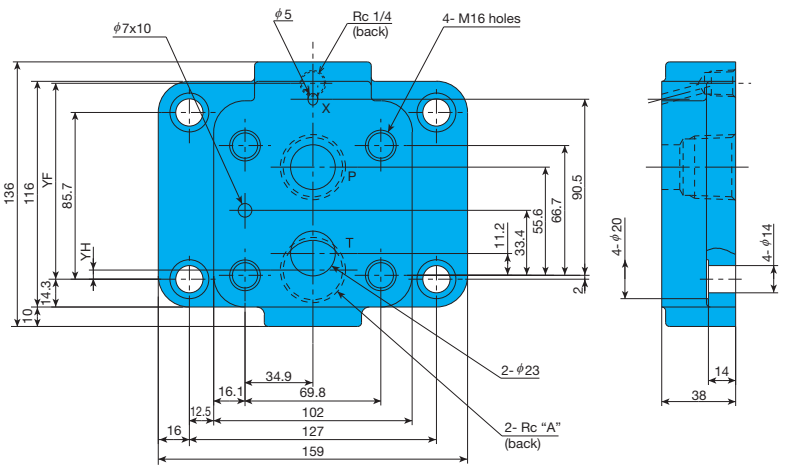
(Maximum Operating Pressure: 25MPa)



Model No.	A
MRI-03-10	3/8
MRI-03X-10	1/2
MRI-06-10	3/4
MRI-06X-10	1

Sub Plate MRI-06*-10

(Maximum Operating Pressure: 25MPa)



Attach a plug when the vent (X) port is not used.

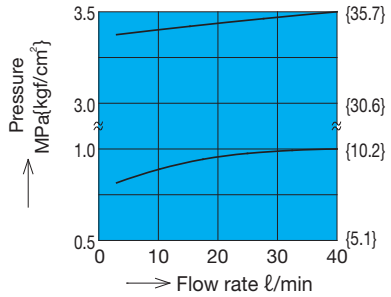
Model No.	YF	YH
MRI-06-10	92.5	13.2
MRI-06X-10	100.7	4.7

Performance Curves

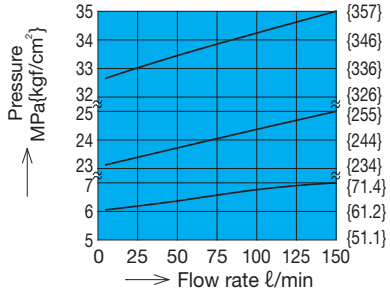
Hydraulic Operating Fluid Kinematic Viscosity 32mm²/s

Pressure - Flow Rate Characteristics

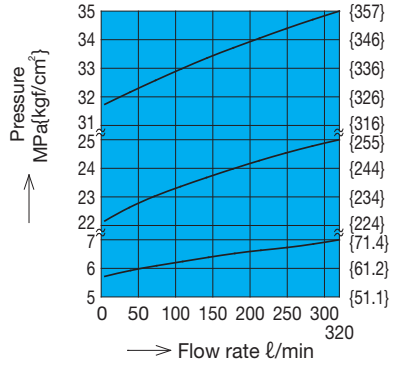
RI-G03-C-20



RI-G03-*-20



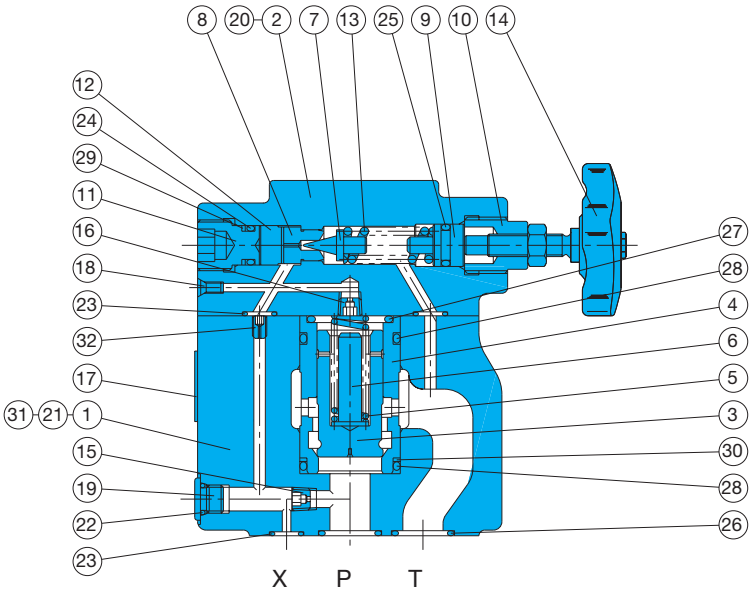
RI-G06-*-20



Note) The performance curves do not include T port back pressure.

Cross-sectional Drawing

RI-G**-*-20



Part No.	Part Name	Part No.	Part Name
1	Body	17	Plate
2	Cover	18	Plug
3	Poppet	19	Plug
4	Sleeve	20	Screw
5	Spring	21	Pin
6	Spacer	22	O-ring
7	Poppet	23	O-ring
8	Seat	24	O-ring
9	Plunger	25	O-ring
10	Retainer	26	O-ring
11	Plug	27	O-ring
12	Collar	28	O-ring
13	Spring	29	Backup ring
14	Handle assy	30	Backup ring
15	Orifice	31	Screw
16	Orifice	32	Choke

Seal Part List (Kit Model Number REBS-***)

Part No.	Part Name	Nominal Diameter/Part Number		Q'ty
		G03	G06	
22	O-ring	NBR-90 P8	NBR-90 P8	1
23	O-ring	NBR-90 P9	NBR-90 P9	3
24	O-ring	NBR-90 P10A	NBR-90 P10A	1
25	O-ring	NBR-70-1 P11	NBR-70-1 P11	1
26	O-ring	NBR-90 P18	NBR-90 P28	2
27	O-ring	NBR-90 G25	NBR-90 P28	1
28	O-ring	NBR-90 G30	NBR-90 P32	2
29	Backup ring	T2-P10A	T2-P10A	1
30	Backup ring	T2-G30	T2-P32	1

Note) The materials and hardness of the O-ring conforms with JIS B2401.
For the *** part of the kit number, specify the valve size (G03, G06).