

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

10.5 to 84.5 gpm
5075 psi

Features

Balanced piston relief valve.
Optimum pressure control for hydraulic circuit allows operation as a safety valve.

A vent port enables remote control of pressure and use of an unloading circuit.

Specifications

Model No.	Nominal Diameter (Size)	Maximum Working Pressure psi	Maximum Flow Rate gpm	Pressure adjustment range psi	Weight lbs	Gasket Surface Dimensions
Gasket Mounting						
RI-G03-C-20	3/8	5075 P, X Ports	10.5	21 to 507	9.9	ISO 6264-AR-06-2-A
RI-G03-1-20 3 5	3/8		39.6	116 to 1000 507 to 3625 507 to 5075	9.9	
RI-G06-1-20 3 5	3/4		84.5	116 to 1000 507 to 3625 507 to 5075	12.3	ISO 6264-AS-08-2-A

Handling

- To adjust pressure, loosen the lock nut and then rotate the handle clockwise (rightward) to increase pressure or counterclockwise (leftward) to decrease it.
- Make sure that tank port back pressure is no greater than 29 psi.
- For use as a safety valve, use a pressure override that is higher than the required circuit pressure.
- 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 .15" and a connection length of no more than three meters is recommended.

- The following are the bundled mounting bolts.

Model No.	Bolt Dimensions	Q'ty	Tightening Torque ft lbs
RI-G03-*20	3/8 - 16	4	55 to 70
RI-G06-*20	5/8 - 11	4	140 to 173

Note: For mounting bolts, use grade 8 or equivalent.

- A small control flow rate can cause pressure instability. Use a control flow rate that is at least 2.1 gpm.

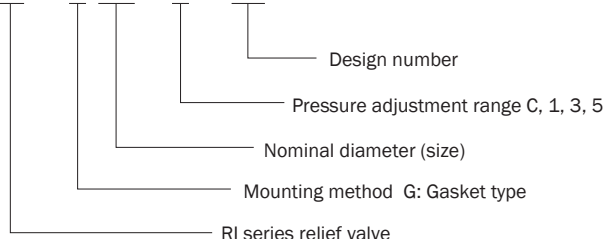
Use a drain type relief valve in the case of a flow rate that is less than the minimum flow rate.

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

Model No.	Pipe Diameter	Weight lbs	Applicable Valve Model
MRI-03-E10	3/8	5.7	RI-G03
MRI-03X-E10	1/2		
MRI-06-E10	3/4	7.7	RI-G06
MRI-06X-E10	1		

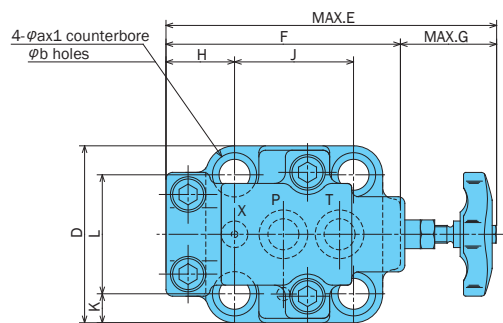
Understanding Model Numbers

RI - G 06 - 1 - 20

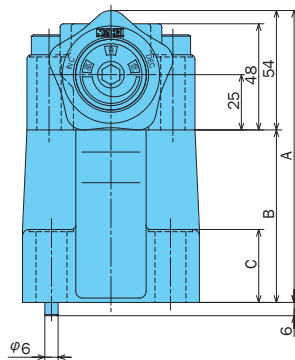
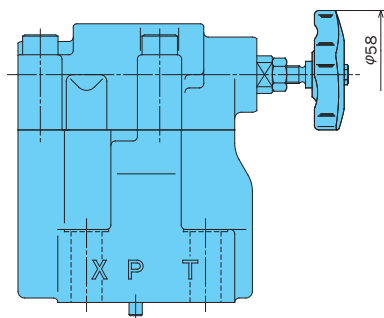


Installation Dimension Drawings

RI-G**-*-20

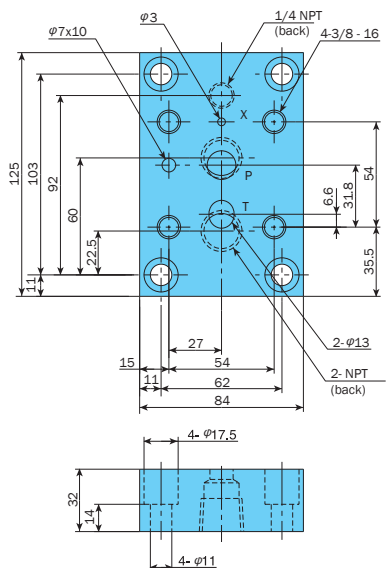


Model No.	A	B	C	D	E	F	G	H	J	K	L	a	b
RI-G03-*-20	132	78	32	80	149.5	106	43.5	31	53.8	13.1	53.8	20	14
RI-G06-*-20	137	83	36	100	158.5	119	39.5	37	66.7	15	70	26	17.5



Sub Plate MRI-03*E10

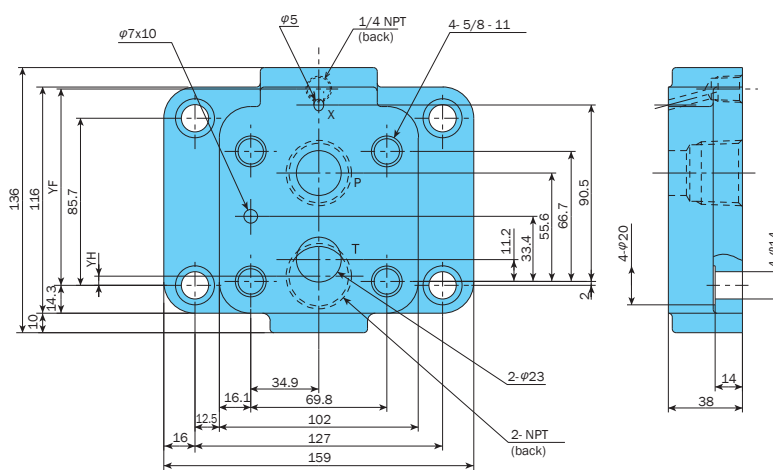
(Maximum Operating Pressure: 3625 psi)



Model No.	A
MRI-03-E10	3/8
MRI-03X-E10	1/2
MRI-06-E10	3/4
MRI-06X-E10	1

Sub Plate MRI-06*E10

(Maximum Operating Pressure: 3625 psi)



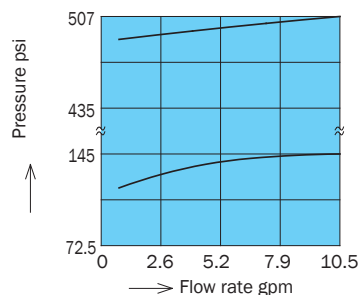
Attach a plug when the vent (X) port is not used.

Model No.	YF	YH
MRI-06-E10	92.5	13.2
MRI-06X-E10	100.7	4.7

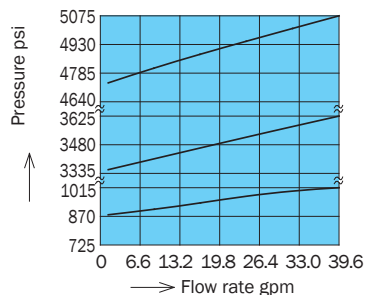
Performance Curves

Hydraulic Operating Fluid Viscosity 32 centistokes

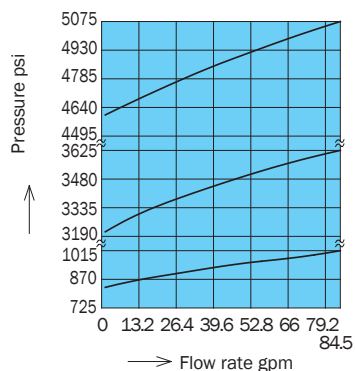
Pressure - Flow Rate Characteristics
RI-G03-C-20



RI-G03-*-20



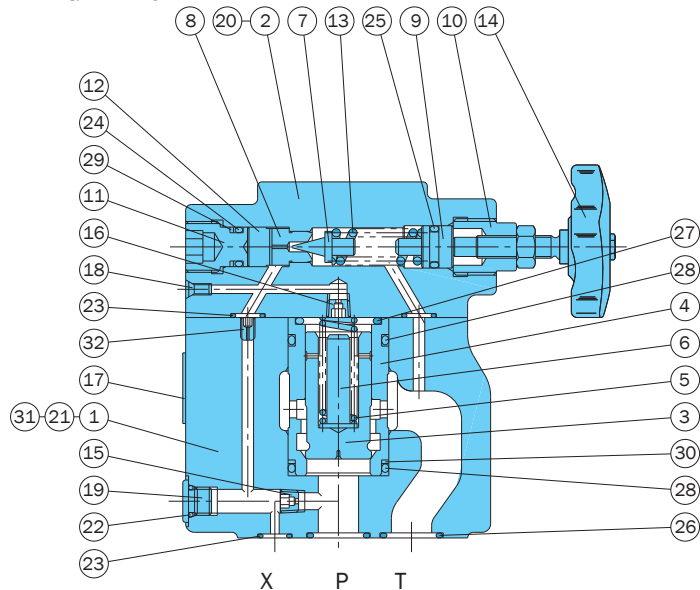
RI-G06-*-20



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	1B-P8	1B-P8	1
23	O-ring	1B-P9	1B-P9	3
24	O-ring	1B-P10A	1B-P10A	1
25	O-ring	1A-P11	1A-P11	1
26	O-ring	1B-P18	1B-P28	2
27	O-ring	1B-G25	1B-P28	1
28	O-ring	1B-G30	1B-P32	2
29	Backup ring	T2-P10A	T2-P10A	1
30	Backup ring	T2-G30	T2-P32	1

Note: O-ring 1A/B-** refers to JIS B 2401-1A/1B-**. For the *** part of the kit number, specify the valve size (G03, G06).