

### 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
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.

5 The following are the bundled mounting bolts.

Model No.	Bolt Dimensions	Qty	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.

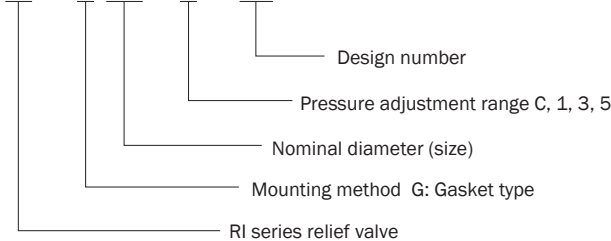
- 6 A small control flow rate can cause pressure instability. Use a control flow rate that is at least 2.1 gpm.

- Use a drain type relief valve in the case of a flow rate that is less than the minimum flow rate.
- 7 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		

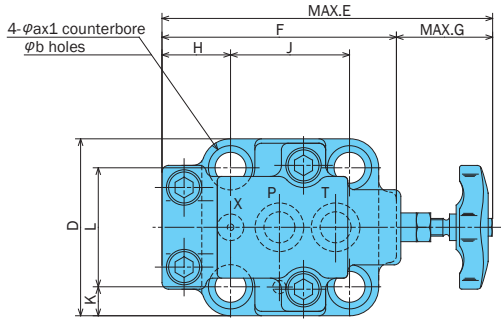
#### Understanding Model Numbers

**RI - G 06 - 1 - 20**

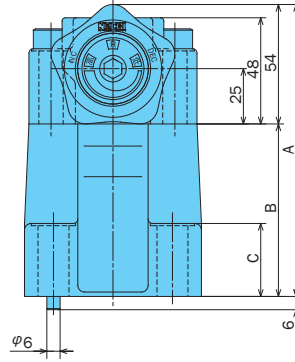
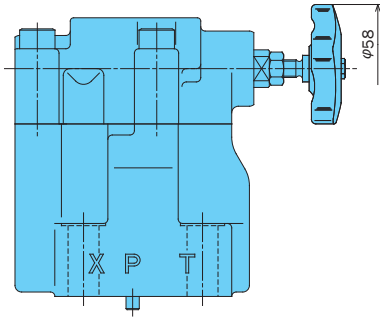


# Installation Dimension Drawings

RI-G\*\*-\*-20

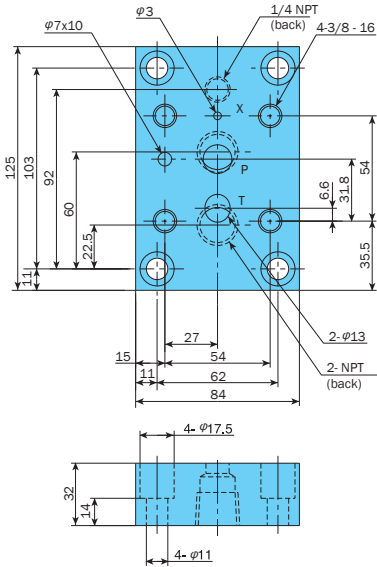


Model No.	A	B	C	D	E	F	G	H	J	K	L	a	b
RI-G03-*-20	132	78	32	80	149.5	106	43.5	31	53.8	13.1	53.8	20	14
RI-G06-*-20	137	83	36	100	158.5	119	39.5	37	66.7	15	70	26	17.5



Sub Plate MRI-03\*-E10

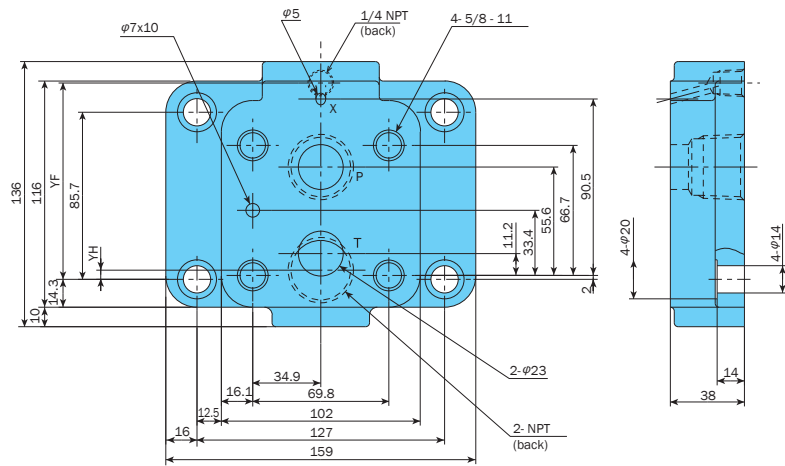
(Maximum Operating Pressure: 3625 psi)



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.

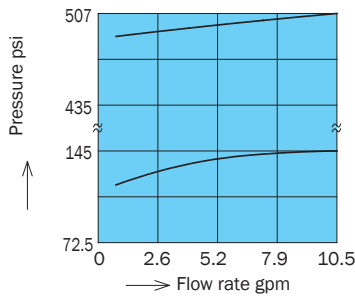
Model No.	YF	YH
MRI-06-E10	92.5	13.2
MRI-06X-E10	100.7	4.7

## Performance Curves

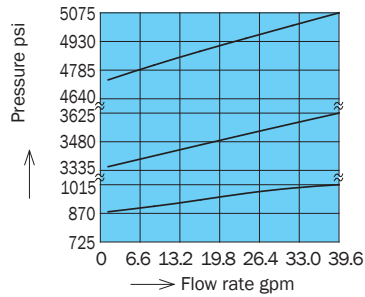
Hydraulic Operating Fluid Viscosity 32 centistokes

Pressure - Flow Rate Characteristics

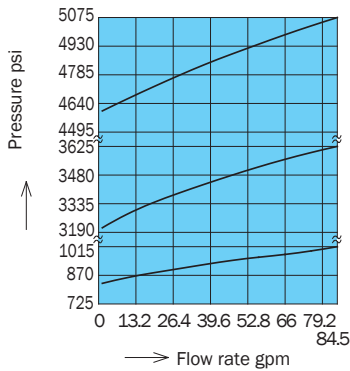
RI-G03-C-20



RI-G03-\*-20



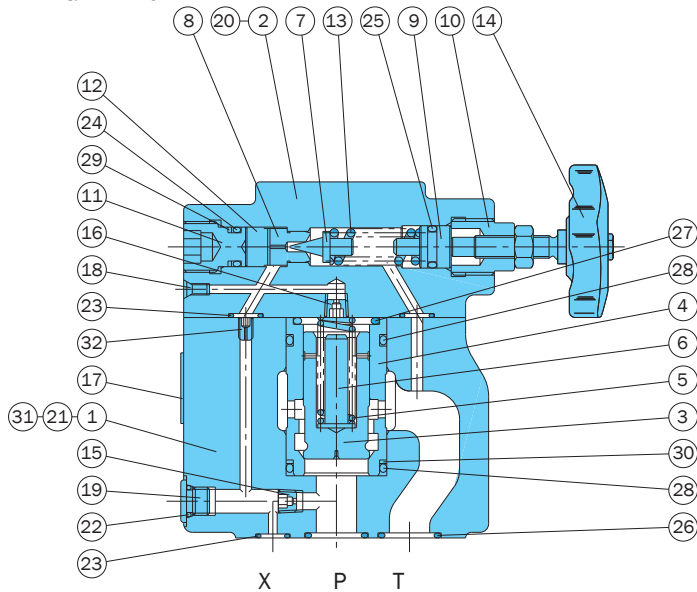
RI-G06-\*-20



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		Qty
		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).