

DESCRIPTION

The R-K MRB series relief valve is a 2-port valve designed to relieve excess pressure that may occur in the line or system when there is back pressure or head-pressure on the downstream side. Simply adjust the threaded stem to obtain selected line or tank relief pressure. An outlet (tee) may be required on the downstream side. The valve starts to open as line pressure approaches set pressure until it is fully open.

The valve can be set to relieve excess pressure between 10-80 PSI The 1/ 4" valve is also available with a relief range of 60-125 PSI The valve is designed so there is no metal contact with the fluid and top entry makes in-line maintenance easy.

R-K MRB SERIES PRESSURE RELIEF VALVE FOR BACK PRESSURE



KEY FEATURES

- **2-port valve:** Designed to relieve excess pressure.
- **Adjustable threaded stem:** Allows setting of line or tank relief pressure.
- **No metal contact with fluid:** Designed to prevent fluid contact with metal components.
- **Top entry:** Facilitates easy in-line maintenance.
- **Pressure relief range:**
- **Standard:** 10-80 P.S.I.
- **1/4" valve option:** 60-125 P.S.I.
- Controlled pressure setting up to 100 PSI available on request.
- **Factory pre-set:** Can be factory pre-set upon request.

VALVE BODY MATERIALS:

- Type 1 – Grade 1 PVC
- Natural Polypropylene (PP)
- PVDF (Polyvinylidene Fluoride)
- Teflon

SEAL

- EPDM
- VITON
- KALREZ

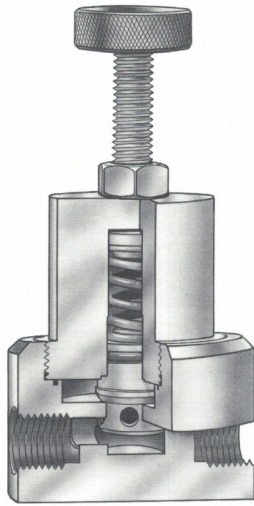
SIZES & PORTING

Valve Sizes: 1/4", 1/2", 3/4", 1.0", 1.5", 2.0", 3.0", 4.0"

Port Types:

1/4" to 1" Valve FNPT
1.5" to 4" Valve MPT
All valves are fully ported

Mounting: Four (4) 1/4"-20 tapped holes for standard machined valve body.
(1/4" to 1.00")



PRESSURE & TEMPERATURE RATINGS:

Temperature Range

- PVC: 0°F to 140°F
- POLYPRO: 0°F to 180°F
- PVDF: 0°F to 280°F
- Teflon: 0°F to 340°F

Upstream Pressure

- Vacuum to 150 PSIG

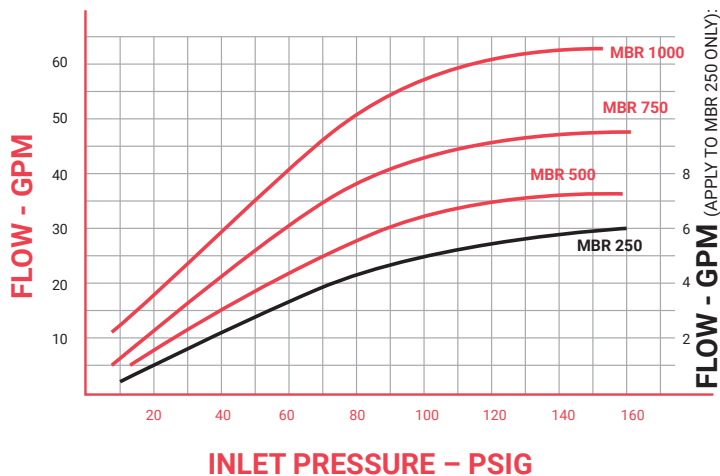
Relief Pressure

- 10 to 80 PSIG standard

Pressure differential

- Plus or Minus 5 PSIG from any pre-set pressure relief point

ENGINEERING & PERFORMANCE DATA



The chart below will specify R - K standard valves regarding valve size, valve material, and seal material.
For special orders, please consult the factory for pricing and delivery information.

MRB - X X X - X

VALVE SIZE

- 25 = 1/4"
- 50 = 1/2"
- 75 = 3/4"
- 100 = 1.0"
- 150 = 1.5"
- 200 = 2.0"
- 300 = 3.0"
- 400 = 4.0"

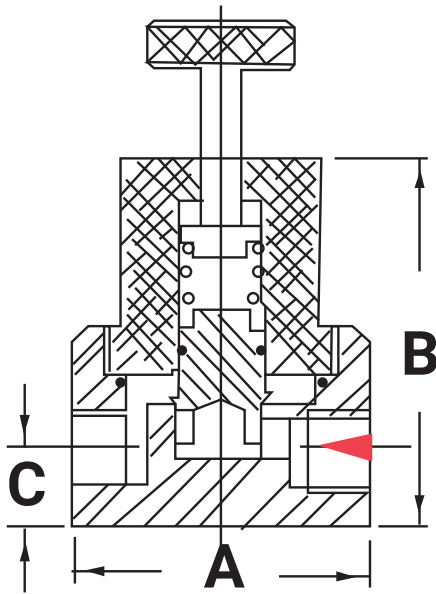
MATERIAL

- 1 = PVC
- 2 = POLYPRO
- 3 = PVDF
- 4 = TEFLON
- 5 = OTHER (Please specify)

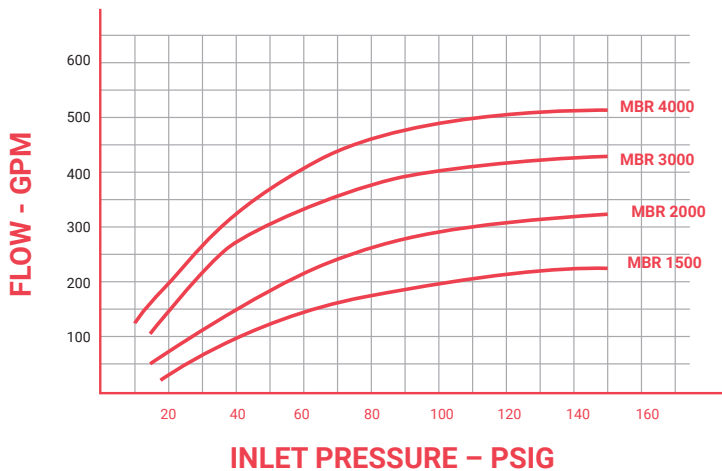
SEALS

- E = EPDM
- V = VITON
- K = KALREZ
- O = OTHER (Please specify)

ENGINEERING & PERFORMANCE DATA



1/4" TO 2.00" VALVE STYLE



DIMENSIONAL DATA

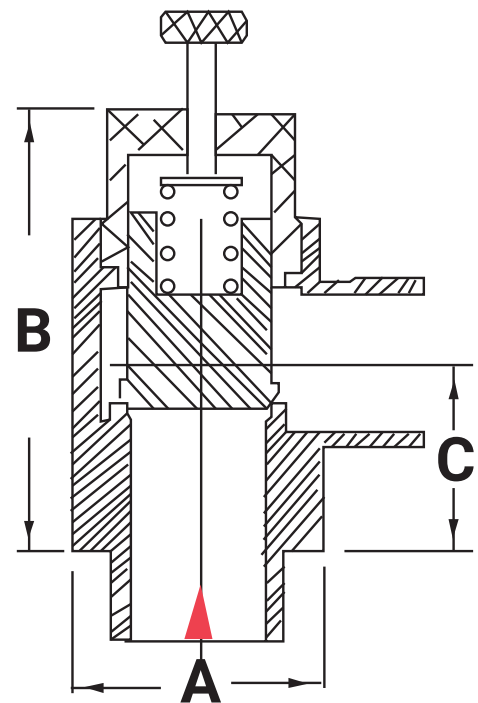
DIMENSIONS IN INCHES

Valve size	Ports	A	B	C	Cv
1/4"	FNPT	2	1.8	0.5	0.58
1/2"	FNPT	3	2.5	0.7	2.87
3/4"	FNPT	3.5	3	0.9	3.31
1.0"	FNPT	4	3.5	1.1	4.32
1.5"	MPT	5	4.7	1.5	16.4*
2.0"	MPT	6	5.5	1.7	21.6*
3.0"	MPT	5	6.75	3.75	32.2*
4.0"	MPT	6	7.5	4	37.4*

(*) Cv value @ 150 GPM

NOTES

- The performance curves show the flow rate of MRB valves with the valve fully open and 100% flow through the valve.
- These curves will change depending on the flow through the system at each different set point.
- Test data was performed with 68°F water and 160 PSIG maximum pressure.
- These performance curves will be changed with higher viscosity liquid and/or higher temperature.
- Consult your local sales representative or manufacturer directly for custom products or special applications.



3.00" VALVE STYLE