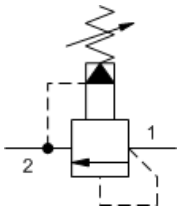
Pilot operated, balanced piston relief valve

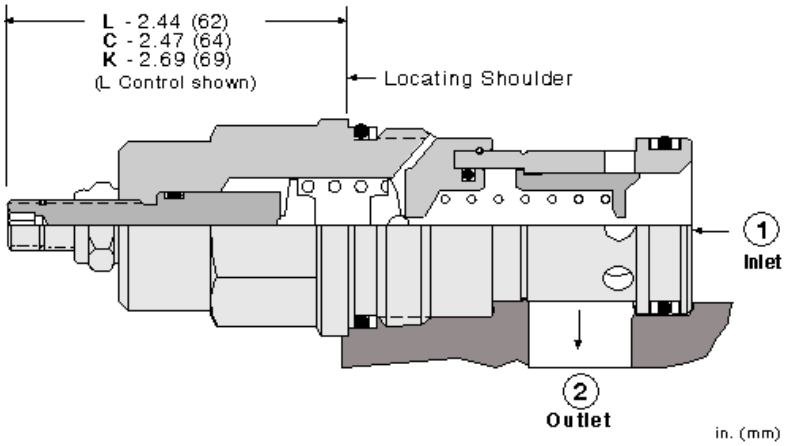
Capacity:
100 gpm (380 L/min.)

Model:
RPIC

Product Description

Pilot-operated, balanced-piston relief cartridges are normally closed pressure regulating valves. When the pressure at the inlet (port 1) reaches the valve setting, the valve starts to open to tank (port 2), throttling flow to regulate the pressure. These valves are accurate, have low pressure rise vs. flow, they are smooth and quiet, and are moderately fast.





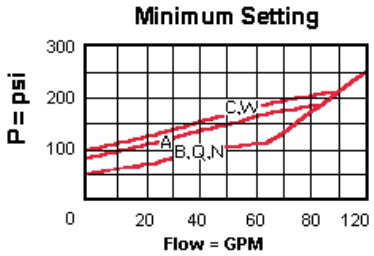
Technical Features

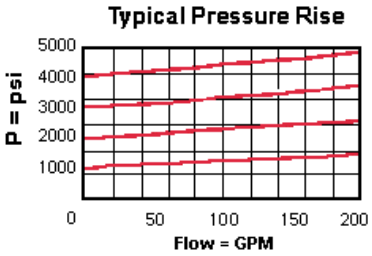
- Main stage orifice is protected by a 150 micron stainless steel screen.
- Not suitable for use in load holding applications due to spool leakage.
- Will accept maximum pressure at port 2; suitable for use in cross port relief circuits. If used in cross port relief circuits, consider spool leakage.
- Back pressure on the tank port (port 2) is directly additive to the valve setting at a 1:1 ratio.
- All 2-port relief cartridges (except pilot reliefs) are physically and functionally interchangeable (same flow path, same cavity for a given frame size).
- Corrosion resistant cartridge valves are intended for use in corrosive environments and are identified by the model code suffix /AP (see Option Selection below). External parts are made from stainless steel with titanium or brass components, where applicable. Internal parts are made from carbon steel leaded alloy, the same as standard valves. For further details, please see the Materials of Construction page.
- Incorporates the Sun floating style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

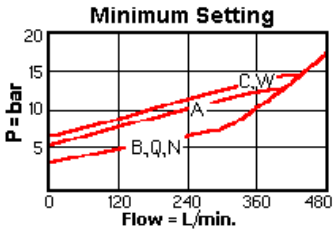
Technical Data

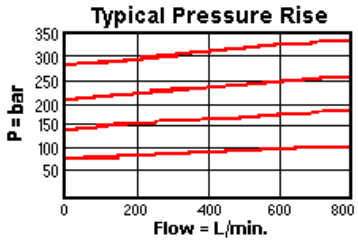
	U.S. Units	Metric Units
Cavity	T-16A	
Capacity	100 gpm	380 L/min.
Factory Pressure Settings Established at	4 gpm	15 L/min.
Maximum Operating Pressure	5000 psi	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	4 in^3/min.@1000 psi	65 cc/min.@70 bar
Response Time - Typical	10 ms	
Series (from Cavity)	Series 3	
Adjustment - Number of Clockwise Turns to Increase Setting	5	

Valve Hex Size	1 1/4 in.	31,8 mm
Valve Installation Torque	150 - 160 lbf ft	200 - 215 Nm
Adjustment Screw Internal Hex Size	5/32 in.	4 mm
Adjustment Locknut/Cap Hex Size	9/16 in.	15 mm
Adjustment Nut Torque	80 - 90 lbf in.	9 - 10 Nm
Seal Kits - Cartridge	Buna: 990-016-007	
Seal Kits - Cartridge	Viton: 990-016-006	
Model Weight	1.19 lb.	0.54 kg.









RPIC-LAN

Control

Preferred Options

L Standard Screw Adjustment

Standard Options

C* Tamper Resistant - Factory Set

W* Max. Setting Limiter

Adjustment Range

Preferred Options

A 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting

W 150 - 4500 psi (10,5 - 315 bar), 1000 psi (70 bar) Standard Setting

Standard Options

B 50 - 1500 psi (3,5 - 105 bar), 1000 psi (70 bar) Standard Setting

C 150 - 6000 psi (10,5 - 420 bar), 1000 psi (70 bar) Standard Setting

D 25 - 800 psi (1,7 - 55 bar), 400 psi (28 bar) Standard Setting

E 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting

N 60 - 800 psi (4 - 55 bar), 400 psi (28 bar) Standard Setting

Q 60 - 400 psi (4 - 28 bar), 200 psi (14 bar) Standard Setting

Seal Material

Preferred Options

N Buna-N

Standard Options

V Viton

Material/Coating Modifier

Preferred Options

No modifier (standard material with no special coating)

Special Options

/AP Stainless Steel, Passivated

Control:C

Control:L

Our stainless product line is growing! If you are interested in a stainless option for this model which is not shown please contact Sun.

Additional Options

Control

K Handknob

M Capped Screw Adjustment with Lockwire Holes

Q* Capped and Lockwired

Adjustment Range

T 40 - 200 psi (2,8 - 14 bar), 100 psi (7 bar) Standard Setting

Seal Material

When the modifier is /AP, the control must be C or L

* Special Setting required, specify at time of order
Customer specified setting stamped on hex.