

Pilot operated, balanced piston relief valve

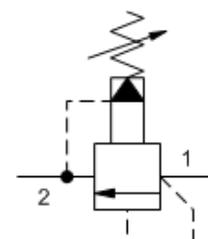
Capacity:
50 gpm (200 L/min.)

Functional Group:
Products : Cartridges : Relief : 2 Port : Pilot Operated, Balanced Piston

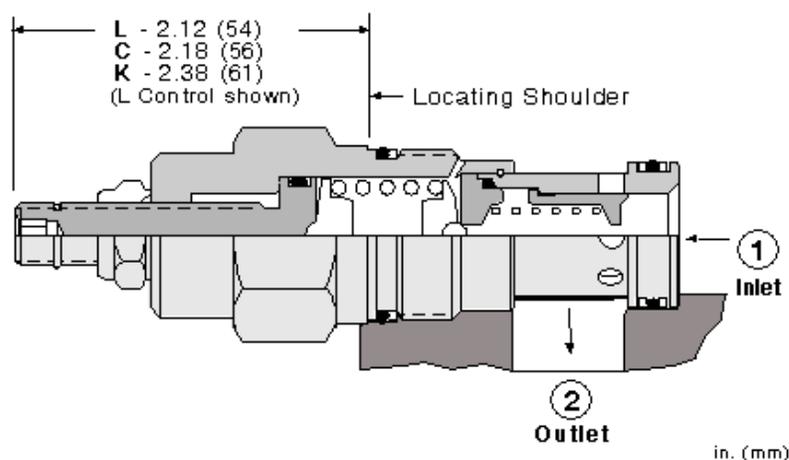
Model:
RPGC

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.



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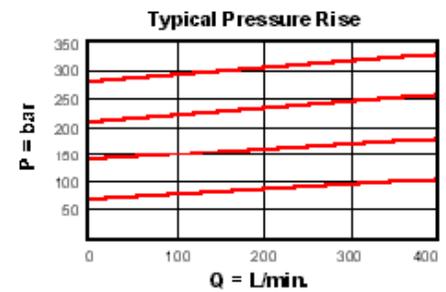
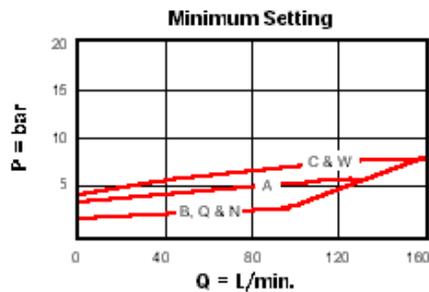
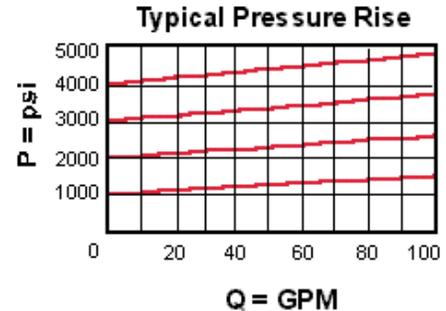
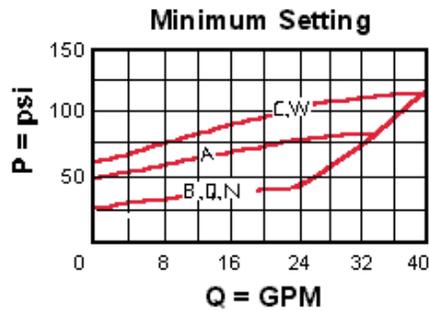
Technical Features

- All 2-port relief cartridges (except pilot reliefs) are physically and functionally interchangeable (same flow path, same cavity for a given frame size).
- 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.
- Main stage orifice is protected by a 150 micron stainless steel screen.
- Not suitable for use in load holding applications due to spool leakage.
- Back pressure on the tank port (port 2) is directly additive to the valve setting at a 1:1 ratio.
- 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-3A |
| Capacity | 50 gpm | 200 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) | 3 in ³ /min.@1000 psi | 50 cc/min.@70 bar |

| | | |
|--|--------------------|------------|
| Response Time - Typical | 10 ms | |
| Series (from Cavity) | Series 2 | |
| Adjustment - Number of Clockwise Turns to Increase Setting | 5 | |
| Valve Hex Size | 1 1/8 in. | 28,6 mm |
| Valve Installation Torque | 45 - 50 lbf ft | 60 - 70 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: 990-203-007 | |
| Seal Kits - Cartridge | Viton: 990-203-006 | |
| Model Weight | 0.57 lb. | 0.26 kg. |



RPGC-LAN

| Control | Adjustment Range | Seal Material | Material/Coating Modifier |
|---|--|--|---|
| Preferred Options | Preferred Options | Preferred Options | Preferred Options |
| L Standard Screw Adjustment Standard Options | A 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting | N Buna-N Standard Options | No modifier (standard material with no special coating) Special Options |
| C* Tamper Resistant - Factory Set | W 150 - 4500 psi (10,5 - 315 bar), 1000 psi (70 bar) Standard Setting | V Viton | /AP Stainless Steel, Passivated |
| F Hex Head Screw with Locknut | Standard Options | | Control: C |
| J Capped Screw Adjustment | B 50 - 1500 psi (3,5 - 105 bar), 1000 psi (70 bar) Standard Setting | | Control: L |
| K Handknob | C 150 - 6000 psi (10,5 - 420 bar), 1000 psi (70 bar) Standard Setting | | Our corrosion resistant product line is growing! If you are interested in a corrosion resistant option for this model, please contact Sun. |
| O Handknob with Panel Mount | D 25 - 800 psi (1,7 - 55 bar), 400 psi (28 bar) Standard Setting | | |
| W* Max. Setting Limiter | 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

Additional Options ([Click Here](#))
Control

Adjustment Range

Seal Material

- | | |
|--|--|
| M Capped Screw Adjustment with Lockwire Holes | G 60 - 3000 psi (4 - 210 bar), 1000 psi (70 bar) Standard Setting |
| Q* Capped and Lockwired | J 25 - 1500 psi (1,7 - 105 bar), 1000 psi (70 bar) Standard Setting |
| T* Tamper Proof - Factory Set | K 75 - 1500 psi (5 - 105 bar), 1000 psi (70 bar) Standard Setting |
| | S 25 - 200 psi (1,7 - 14 bar), 100 psi (7 bar) Standard Setting |
| | U 60 - 200 psi (4 - 14 bar), 100 psi (7 bar) Standard Setting |
| | V 150 - 800 psi (10,5 - 55 bar), 400 psi (28 bar) Standard Setting |

If the control is 3, the range must be A,C or D
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 \$ 2.00