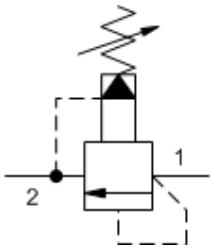
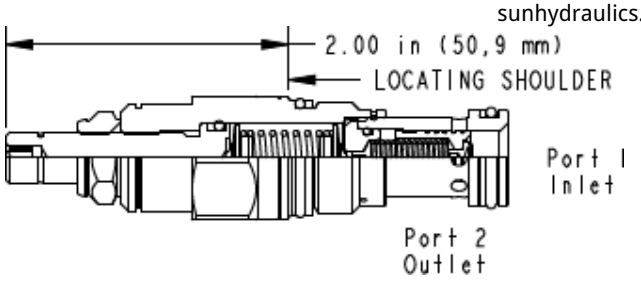
MODEL
RPEC

# Pilot-operated, balanced piston relief valve
## SERIES 1 / CAPACITY: 95 L/min. / CAVITY: T-10A

sunhydraulics.com/model/RPEC




## CONFIGURATION

| | | |
|---|---|---|
| **L** | Control | Standard Screw Adjustment |
| **E** | Adjustment Range | 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting |
| **N** | Seal Material | Buna-N |
| **(none)** | Material/Coating | |

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 DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

| | |
|---|---|
| Cavity | T-10A |
| Series | 1 |
| Capacity | 95 L/min. |
| Maximum Operating Pressure | 350 bar |
| Factory Pressure Settings Established at | 15 L/min. |
| Maximum Valve Leakage at 110 SUS (24 cSt) | 30 cc/min.@70 bar |
| Response Time - Typical | 10 ms |
| Adjustment - No. of CW Turns from Min. to Max. setting | 5 |
| Valve Hex Size | 22,2 mm |
| Valve Installation Torque | 41 - 47 Nm |
| Adjustment Screw Internal Hex Size | 4 mm |
| Locknut Hex Size | 15 mm |
| Locknut Torque | 9 - 10 Nm |
| Seal kit - Cartridge | Buna: 990010007 |
| Seal kit - Cartridge | EPDM: 990010014 |
| Seal kit - Cartridge | Polyurethane: 990010002 |
| Seal kit - Cartridge | Viton: 990010006 |
| Model Weight | 0.14 kg. |

## NOTES

For Series 1 cartridges configured with an O control (panel mount handknob), a .75 in. (19 mm) diameter hole is required in the panel.

© 2024 Sun Hydraulics

## CONFIGURATION OPTIONS

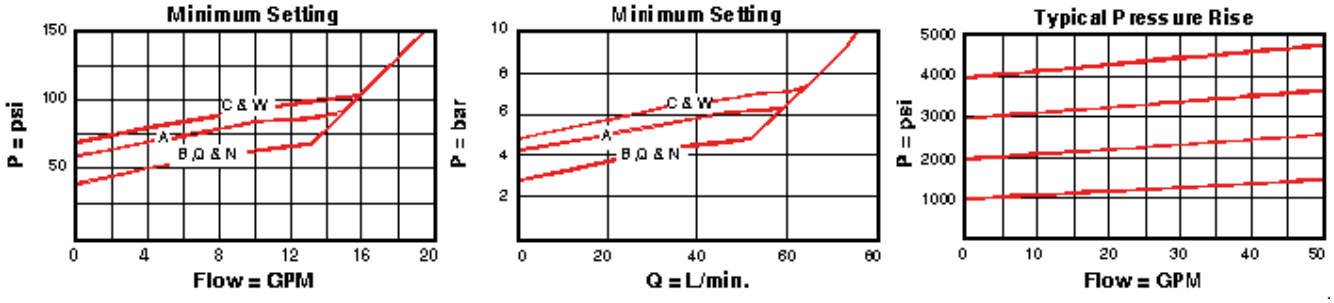
**Model Code Example: RPECLEN**

| CONTROL (L) | ADJUSTMENT RANGE (E) | SEAL MATERIAL (N) | MATERIAL/COATING |
|---|---|---|---|
| **L** Standard Screw Adjustment | **E** 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting | **N** Buna-N | Standard Material/Coating |
| **C** Tamper Resistant - Factory Set | **A** 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting | **E** EPDM | **/AP** Stainless Steel, Passivated |
| **K** Handknob | **W** 150 - 4500 psi (10,5 - 315 bar), 1000 psi (70 bar) Standard Setting | **V** Viton | **/LH** Mild Steel, Zinc-Nickel |
| **O** Handknob with Panel Mount | **B** 50 - 1500 psi (3,5 - 105 bar), 1000 psi (70 bar) Standard Setting | | |
| **W** Hex Wrench Adjustment | **C** 150 - 6000 psi (10,5 - 420 bar), 1000 psi (70 bar) Standard Setting | | |
| **Y** Tri-Grip Handknob | **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 | | |

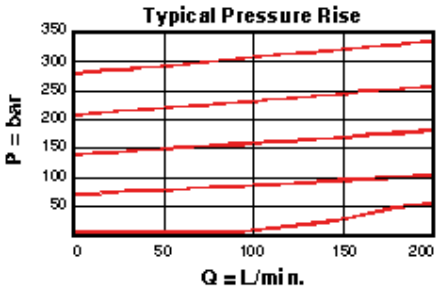
## TECHNICAL FEATURES

- 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.
- Cartridges configured with EPDM seals are for use in systems with phosphate ester fluids. Exposure to petroleum based fluids, greases and lubricants will damage the seals.
- W and Y controls (where applicable) can be specified with or without a special setting. When no special setting is specified, the valve is adjustable throughout its full range using the W or Y control. When a special setting is specified, this setting represents the maximum setting of the valve.
- Corrosion resistant cartridge valves are intended for use in corrosive environments and are identified by the model code suffix /AP for external stainless steel components, or /LH for external zinc-nickel plated components. See the CONFIGURATION section for all options. For further details, please see the Materials of Construction page located under TECH RESOURCES.
- 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.

## PERFORMANCE CURVES




© 2024 Sun Hydraulics




## RELATED MODELS

- RPEC8 Pilot-operated, balanced piston relief main stage with integral T-8A control cavity

© 2024 Sun Hydraulics