



## CONFIGURATION

|                                |                  |  |
|--------------------------------|------------------|--|
| <b>L</b>                       | Control          | Standard Screw Adjustment                                      |
| <b>E</b>                       | Adjustment Range | 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting |
| <b>V</b>                       | Seal Material    | Viton  |
| <b>(none)</b> Material/Coating |                  |  |

Fast-acting, pilot-operated, balanced piston relief cartridges are normally closed, pressure-limiting valves used to protect hydraulics components from pressure transients. Fast opening and closing is gained at the expense of smoothness. When the pressure at the inlet (port 1) reaches the valve setting, the valve starts to open to tank (port 2), throttling flow to limit the pressure rise. These valves have low pressure rise vs. flow and are very fast.

## TECHNICAL DATA

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

|  |                                  |
|--|----------------------------------|
| Cavity   | T-10A                            |
| Series   | 1                                |
| Capacity   | 25 gpm                           |
| Maximum Operating Pressure                             | 5000 psi                         |
| Factory Pressure Settings Established at               | 4 gpm                            |
| Maximum Valve Leakage at 110 SUS (24 cSt)              | 2 in <sup>3</sup> /min.@1000 psi |
| Response Time - Typical                                | 2 ms                             |
| Adjustment - No. of CW Turns from Min. to Max. setting | 5                                |
| Valve Hex Size   | 7/8 in.                          |
| Valve Installation Torque                              | 30 - 35 lbf ft                   |
| Adjustment Screw Internal Hex Size                     | 5/32 in.                         |
| Locknut Hex Size                                       | 9/16 in.                         |
| Locknut Torque   | 80 - 90 lbf in.                  |
| Seal kit - Cartridge                                   | Buna: 990010007                  |
| Seal kit - Cartridge                                   | Polyurethane: 990010002          |
| Seal kit - Cartridge                                   | Viton: 990010006                 |
| Model Weight   | 0.31 lb.                         |

## 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.

## CONFIGURATION OPTIONS

### Model Code Example: RPEELEV

| CONTROL                                 | (L) | ADJUSTMENT RANGE   | (E) | SEAL MATERIAL   | (V) | MATERIAL/COATING                |
|---|-----|--|-----|-----------------|-----|---------------------------------|
| <b>L</b> Standard Screw Adjustment      |     | <b>E</b> 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting      |     | <b>V</b> Viton  |     | Standard Material/Coating       |
| <b>C</b> Tamper Resistant - Factory Set |     |  |     | <b>N</b> Buna-N |     | /AP Stainless Steel, Passivated |
| <b>K</b> Handknob                       |     | <b>A</b> 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting    |     |                 |     | /LH Mild Steel, Zinc-Nickel     |
| <b>O</b> Handknob with Panel Mount      |     | <b>B</b> 50 - 1500 psi (3,5 - 105 bar), 1000 psi (70 bar) Standard Setting   |     |                 |     |                                 |
| <b>Y</b> Tri-Grip Handknob              |     | <b>C</b> 150 - 6000 psi (10,5 - 420 bar), 1000 psi (70 bar) Standard Setting |     |                 |     |                                 |
|   |     | <b>D</b> 25 - 800 psi (1,7 - 55 bar), 400 psi (28 bar) Standard Setting      |     |                 |     |                                 |
|   |     | <b>W</b> 150 - 4500 psi (10,5 - 315 bar), 1000 psi (70 bar) Standard Setting |     |                 |     |                                 |

## TECHNICAL FEATURES

- 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.
- All 2-port relief cartridges (except pilot reliefs) are physically and functionally interchangeable (same flow path, same cavity for a given frame size).
- 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.
- 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

