

Direct-acting relief valve

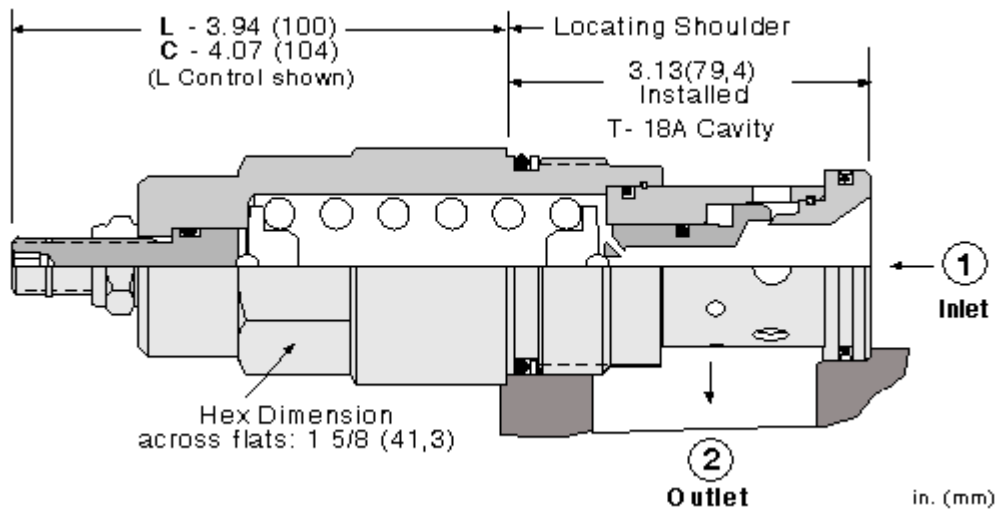
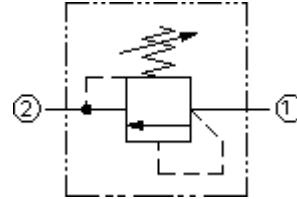
Capacity:
200 gpm (760 L/min.)

Functional Group:
Products : Cartridges : Relief : 2 Port : Direct Acting

Model:
RDJA

Product Description

Direct-acting relief cartridges are normally closed, pressure-limiting valves used to protect hydraulic components from pressure transients. 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 are smooth and quiet, essentially zero leak, dirt tolerant, immune to silting and are very fast.

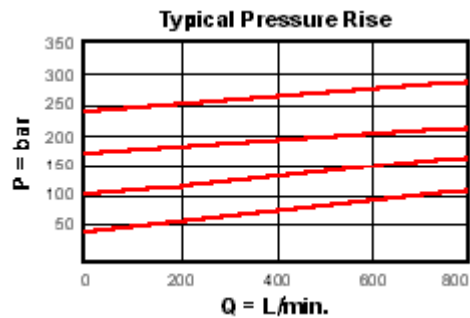
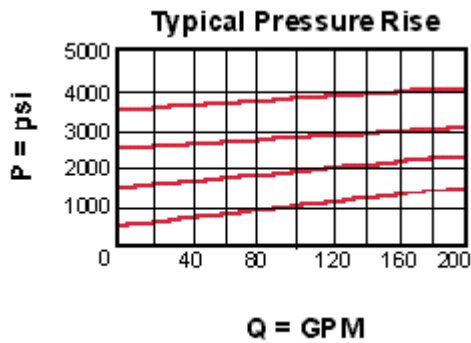


Technical Features

- Will accept maximum pressure at port 2; suitable for use in cross port relief circuits.
- The seals on the adjust screw are exposed to system pressure which means this valve can only be adjusted when the pressure is removed. The setting procedure is; check the setting, remove the pressure, adjust the valve, check the new setting.
- Valve is relatively insensitive to varying oil temperatures and oil borne contamination.
- Select a spring range where the desired relief setting is approximately mid-range between the minimum and maximum pressure to ensure maximum valve repeatability.
- Suitable for use in load holding applications.
- 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).
- 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-18A |
| Capacity | 200 gpm | 760 L/min. |
| Adjustment - Number of Clockwise Turns to Increase Setting | | 5 |
| Factory Pressure Settings Established at | 4 gpm | 15 L/min. |
| Maximum Operating Pressure | 5000 psi | 350 bar |
| Maximum Valve Leakage at Reseat | 10 drops/min. | 0,7 cc/min. |
| Response Time - Typical | | 2 ms |
| Series (from Cavity) | | Series 4 |
| U.S. Patent # | | 4,742,846 |
| Reseat | | >90 % of Set Pressure |
| Valve Hex Size | 1 5/8 in. | 41,3 mm |
| Valve Installation Torque | 350 - 375 lbf ft | 465 - 500 Nm |
| Adjustment Screw Internal Hex Size | 5/32 in. | 4 mm |
| Adjustment Nut Hex Size | 9/16 in. | 15 mm |
| Adjustment Nut Torque | 108 lbf in. | 12 Nm |
| Model Weight | 3.30 lb. | 1.50 kg. |
| Seal Kits - Cartridge | | Buna: 990-318-007 |
| Seal Kits - Cartridge | | Viton: 990-318-006 |



RDJA-LAN

Control

Adjustment Range

External Material/Seal Material

Preferred Options

L Standard Screw Adjustment

500 - 3000 psi (35 - 210 bar), 1000 psi (70 bar) Standard Setting

N Buna-N

800 - 4500 psi (55 - 315 bar), 1000 psi (70 bar) Standard Setting

Standard Options

| | | | | |
|----|--------------------------------|--|---|-------|
| C* | Tamper Resistant - Factory Set | 300 - 1500 psi (20 - 105 bar), 1000 psi (70 bar) Standard Setting | V | Viton |
| | | 1000 - 6000 psi (70 - 420 bar), 1000 psi (70 bar) Standard Setting | | |
| | | 200 - 800 psi (14 - 55 bar), 400 psi (28 bar) Standard Setting | | |
| | | 150 - 400 psi (10 - 28 bar), 200 psi (14 bar) Standard Setting | | |
| | | 50 - 200 psi (3,5 - 14 bar), 100 psi (7 bar) Standard Setting | | |

* Special Setting required, specify at time of order
Customer specified setting stamped on hex \$1.10

- Explanation of Sun cartridge control options - US units.
- Explanation of Sun cartridge control options - metric units.

