

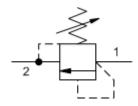


Direct-acting relief valve

CAPACITY: 200 gpm / CAVITY: T-18A

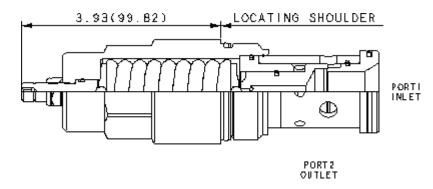


sunhydraulics.com/model/RDJA



## **CONFIGURATION**

L	Control	Standard Screw Adjustment
Α	Adjustment Range	500 - 3000 psi (35 - 210 bar), 1000 psi (70 bar) Standard Setting
N	Seal Material	Buna-N
	Material/Coating	



Direct-acting relief cartridges are normally closed, pressurelimiting valves used to protect hydraulic components from pressure transients. When the pressure at the inlet (port 1)

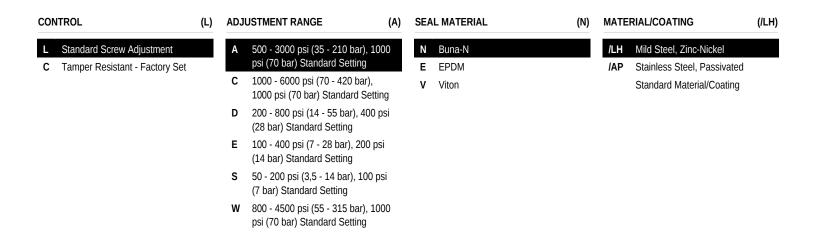
reaches the valve setting, the valve starts to open to tank (port 2), throttling flow to limit the pressure rise. These valves are smooth and quiet, essentially zero leak, dirt tolerant, immune to silting and are very fast.

# **TECHNICAL DATA** NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Cavity	T-18A
Series	4
Capacity	200 gpm
Maximum Operating Pressure	5000 psi
Factory Pressure Settings Established at	4 gpm
Maximum Valve Leakage at Reseat	10 drops/min.
Response Time - Typical	2 ms
Reseat	>90% of setting
Adjustment - No. of CW Turns from Min. to Max. setting	6
Valve Hex Size	1 5/8 in.
Valve Installation Torque	350 - 375 lbf ft
Adjustment Screw Internal Hex Size	5/32 in.
Locknut Hex Size	9/16 in.
Locknut Torque	80 - 90 lbf in.
Model Weight	3.30 lb.
Seal kit - Cartridge	Buna: 990-318-007
Seal kit - Cartridge	EPDM: 990-318-014
Seal kit - Cartridge	Viton: 990-318-006

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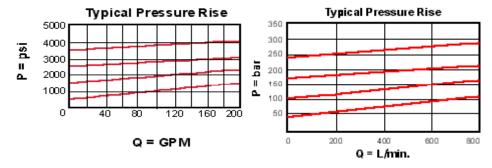
#### OPTION SELECTION EXAMPLE: RDJALAN



### **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.
- 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 to high 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.
- 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.
- Test pressure for each range is as follows: A range 2000 psi (138 bar), B range 1000 psi (69 bar), C range 4000 psi (276 bar), D range 800 psi (55 bar), E range 400 psi (28 bar), S range 150 psi (10 bar), W range 3000 psi (207 bar).
- Reseat meets or exceeds 90% of crack pressure at test setting. Settings lower than the test pressure may result in lower reseat percentages.
- 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



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