

Direct-acting relief valve

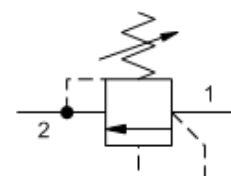
Capacity:
100 gpm (380 L/min.)

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

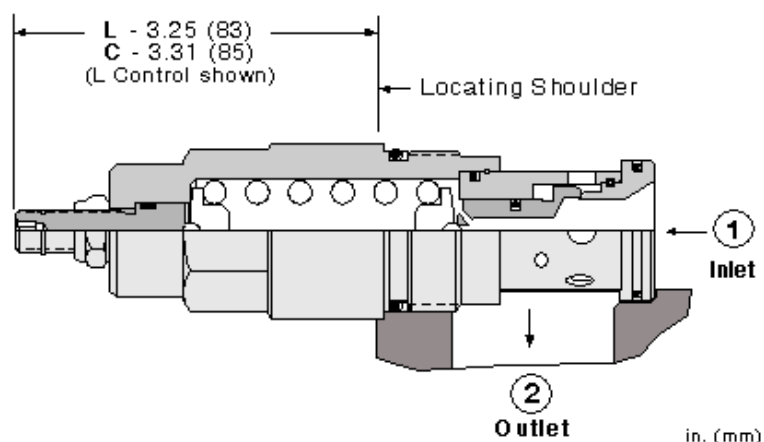
Model:
RDHA

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.



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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.
- 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.
- 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.

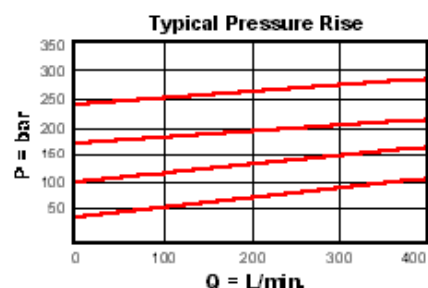
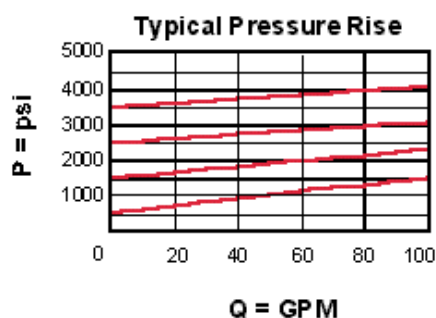
Special Notes

- U.S. Patent #4,742,846; European Patent Pending

Technical Data

	U.S. Units	Metric Units
Cavity	T-16A	
Capacity	100 gpm	380 L/min.
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 3	

Reseat	>90 % of Set Pressure	
Adjustment - Number of Clockwise Turns to Increase Setting	5	
Valve Hex Size	1 1/4 in.	31,8 mm
Valve Installation Torque	150 - 160 lbf ft	200 - 215 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: 990-316-007	
Seal Kits - Cartridge	Viton: 990-316-006	
Model Weight	1.50 lb.	0.68 kg.



RDHA-LAN

Control	Adjustment Range	Seal Material	Material/Coating Modifier
Preferred Options	Preferred Options	Preferred Options	Preferred Options
L Standard Screw Adjustment Standard Options	A 500 - 3000 psi (35 - 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 800 - 4500 psi (55 - 315 bar), 1000 psi (70 bar) Standard Setting Standard Options	V Viton	/AP Stainless Steel, Passivated Control: C Control: L
	B 300 - 1500 psi (20 - 105 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.
	C 1000 - 6000 psi (70 - 420 bar), 1000 psi (70 bar) Standard Setting		
	D 200 - 800 psi (14 - 55 bar), 400 psi (28 bar) Standard Setting		
	E 100 - 400 psi (7 - 28 bar), 200 psi (14 bar) Standard Setting		
	S 50 - 200 psi (3,5 - 14 bar), 100 psi (7 bar) Standard Setting		

Additional Options ([Click Here](#))

Control	Adjustment Range	Seal Material
Q* Capped and Lockwired		

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

Related Documents (opens in new window):

- [Explanation of Sun cartridge control options - US units.](#)
- [Explanation of Sun cartridge control options - metric units.](#)

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