

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.

The CE marked valve is a safety valve that meets the requirements of the European Directive for Pressurized Devices (PED) 2014/68/EU. The valve setting represents the excess operating pressure at which the valve opens. Valve capacity can be determined from the performance curve. It shows an approved flow which depends on the excess operating pressure. As a requirement of the PED, the system pressure at the maximum approved flow is a maximum of 10% above the excess operating pressure.

CONFIGURATION

Q Control	Capped and Lockwired
W Adjustment Range	211 - 314 bar (211 - 314 bar)
N Seal Material	Buna-N

TECHNICAL DATA

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

Cavity	T-10A
Series	1
Capacity	19.8 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	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: 990310007
Seal kit - Cartridge	Viton: 990310006
Model Weight	0.42 lb.

CONFIGURATION OPTIONS

Model Code Example: **RDDTQWN**

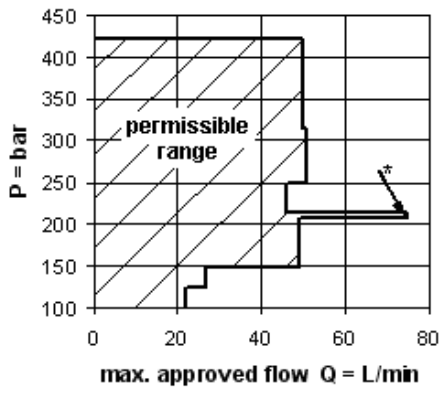
CONTROL	(Q)	ADJUSTMENT RANGE	(W)	SEAL MATERIAL	(N)
Q Capped and Lockwired		W 211 - 314 bar (211 - 314 bar)		N Buna-N	
		A 100 - 210 bar (100 - 210 bar)		V Viton	
		B 90 - 99 bar (90 - 99 bar)			
		C 315 - 422 bar (315 - 422 bar)			

TECHNICAL FEATURES

- Standard settings for preset valves include:
 - A adjustment range: 100 bar, 140 bar, 160 bar and 210 bar
 - W adjustment range: 250 bar
 - C adjustment range: 330 bar
 Other settings are available upon request.
- At this time RDDT and RDFT are the only Sun relief valves that are CE marked.
- Each delivery contains a TÜV-Approval, which is a certification of the excess operating pressure and the approved flow, an EC Declaration of conformity and an instructional manual.
- Pressure settings from 90 bar up to 422 bar are approved and certified by TÜV
- Will accept maximum pressure at port 2; suitable for use in cross port relief circuits.
- Valve is relatively insensitive to varying oil temperatures and oil borne contamination.
- 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.

PERFORMANCE CURVES

Permissible Operating Range



* approved flow at 210 bar is 75 L/min