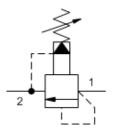




Pilot-operated, balanced piston relief valve

SERIES 3 / CAPACITY: 380 L/min. / CAVITY: T-16A





sunhydraulics.com/model/RP

2.43(61.72)

LOCATING SHOULDER

PORTI
INLET

PORT2
DUTLET

CONFIGURATION

L	Control	Standard Screw Adjustment	
W	Adjustment Range	150 - 4500 psi (10,5 - 315 bar), 1000 psi (70 bar) Standard Setting	
N	Seal Material	Buna-N	
(none) Material/Coating		Standard Material/Coating	

Pilot-operated, balanced-piston relief cartridges are normally closed pressure regulating valves. When the pressure at the inlet (port 1) reaches the valve setting, the valve starts to open to tank (port 2), throttling flow to regulate the pressure. These valves are accurate, have low pressure rise vs. flow, they are smooth and quiet, and are moderately fast.

TECHNICAL DATA

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

Cavity	T-16A
Series	3
Capacity	380 L/min.
Factory Pressure Settings Established at	15 L/min.
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	65 cc/min.@70 bar
Response Time - Typical	10 ms
Adjustment - No. of CW Turns from Min. to Max. setting	5
Valve Hex Size	31,8 mm
Valve Installation Torque	203 - 217 Nm
Adjustment Screw Internal Hex Size	4 mm
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990016007
Seal kit - Cartridge	EPDM: 990016014
Seal kit - Cartridge	Polyurethane: 990016002
Seal kit - Cartridge	Viton: 990016006
Model Weight	0.54 kg.

CONFIGURATION OPTIONS

Model Code Example: RPICLWN

CONTROL (L) ADJUSTMENT RANGE (W) SEAL MATERIAL (N) MATERIAL/COATING

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- $\mathbf{W} \ \operatorname{Hex} \operatorname{Wrench} \operatorname{Adjustment}$
- Y Tri-Grip Handknob
- **W** 150 4500 psi (10,5 315 bar), 1000 psi (70 bar) Standard Setting
- **A** 100 3000 psi (7 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 50 1500 psi (3,5 105 bar), 1000 psi (70 bar) Standard Setting
- **C** 150 6000 psi (10,5 420 bar), 1000 psi (70 bar) Standard Setting
- D 25 800 psi (1,7 55 bar), 400 psi (28 bar) Standard Setting
- E 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- **N** 60 800 psi (4 55 bar), 400 psi (28 bar) Standard Setting
- **Q** 60 400 psi (4 28 bar), 200 psi (14 bar) Standard Setting

N Buna-N
E EPDM
V Viton

/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

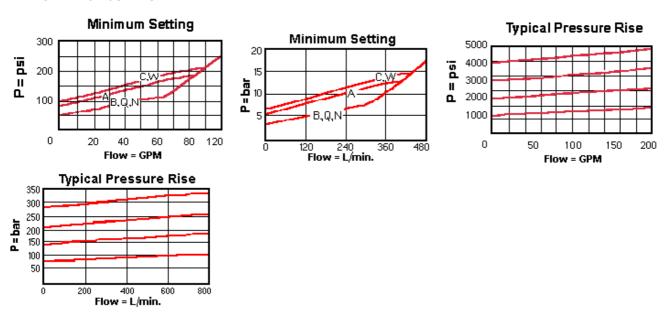
Standard Material/Coating

© 2019 Sun Hydraulics

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).
- 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.
- · 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.
- 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.
- Corrosion resistant cartridge valves are intended for use in corrosive environments and are identified by the model code suffix /AP for external stainless steel
 components, or /LH for external zinc-nickel plated components. See the CONFIGURATION section for all options. For further details, please see the Materials of
 Construction page located under TECH RESOURCES.
- 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



RELATED MODELS

RPIC8 Pilot-operated, balanced piston relief main stage with integral T-8A control cavity

© 2019 Sun Hydraulics 2 of 2