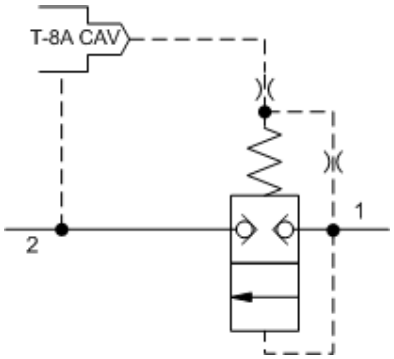
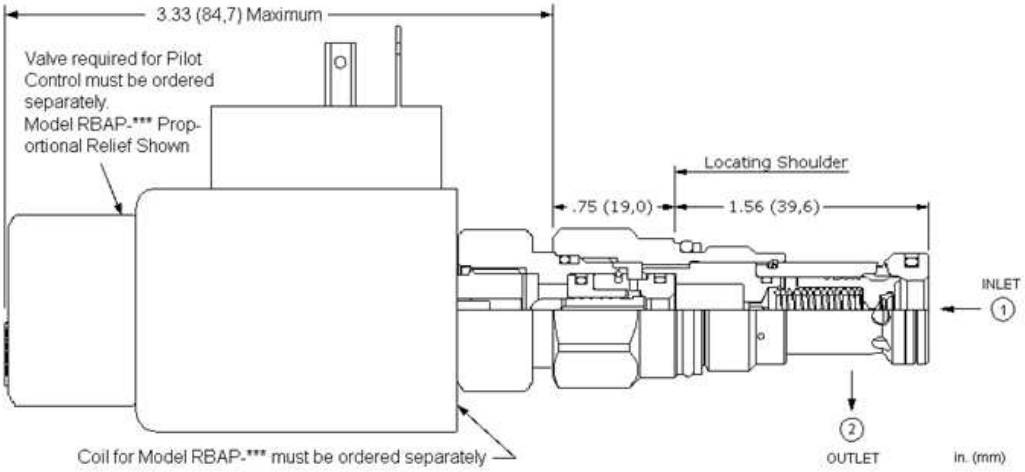
MODEL
RPES8

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

SERIES 1 / CAPACITY: 25 gpm / CAVITY: T-10A

sunhydraulics.com/model/RPES8





CONFIGURATION

W	Adjustment Range	1000 - 5000 psi (70 - 350 bar)
N	Seal Material	Buna-N
(none)	Material/Coating	

This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is a balanced poppet design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the poppet element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between port 1 and port 2.

TECHNICAL DATA

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

Cavity	T-10A
Series	1
Capacity	25 gpm
Maximum Operating Pressure	5000 psi
Factory Pressure Settings Established at	4 gpm
Control Pilot Flow	10 - 25 in³/min.
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	20 - 25 lbf ft
Pilot Control Valve Hex Size	7/8 in.
Main stage leakage at reseat	10 drops/min.
Response Time - Typical	7 ms
Valve Hex Size	7/8 in.
Valve Installation Torque	30 - 35 lbf ft
Seal kit - Cartridge	Buna: 990310007
Seal kit - Cartridge	EPDM: 990310014
Seal kit - Cartridge	Viton: 990310006
Model Weight	0.20 lb.

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

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CONFIGURATION OPTIONS

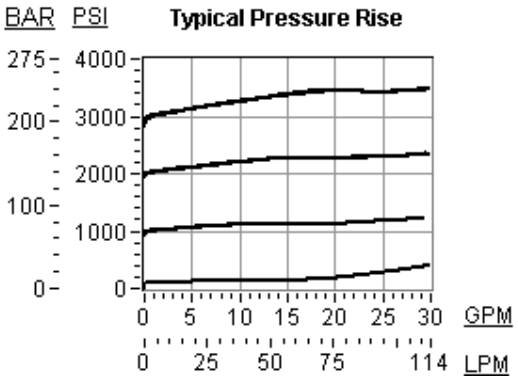
Model Code Example: RPES8WN

ADJUSTMENT RANGE (W)	SEAL MATERIAL (N)	MATERIAL/COATING
W 1000 - 5000 psi (70 - 350 bar)	**N** Buna-N	Standard Material/Coating
D 50 - 1500 psi (3,5 - 105 bar)	**E** EPDM	**/LH** Mild Steel, Zinc-Nickel
	V Viton	

TECHNICAL FEATURES

- Because the modulating occurs inside the cartridge, these valves are immune to most of the problems associated with cavitation, namely noise and manifold erosion.
- 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.
- Valve is relatively insensitive to varying oil temperatures and oil borne contamination.
- Main stage orifice is protected by a 150-micron stainless steel screen.
- Back pressure on the tank port (port 2) is directly additive to the valve setting at a 1:1 ratio.
- NOTE: With the -8 control option, the main stage valve should first be installed to the correct torque value. The T-8A pilot control valve should then be installed into the main stage valve to its required torque value.
- The -8 control option allows the pilot control valve to be incorporated directly into the end of the relief cartridge via the T-8A cavity. These pilot control cartridges are sold separately and include electro-proportional, solenoid, air pilot, and hydraulic pilot operation. See Pilot Control Cartridges.
- 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.

PERFORMANCE CURVES



RELATED MODELS

- RPES Pilot-operated, balanced poppet relief valve

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