

FIXED SETPOINT PRESSURE SWITCH FOR EXTREME ENVIRONMENTS



The **Model 744-S** fixed setting pressure switch is a piston-operated, factory set, miniature design. It's ideal for use where installation space is limited and in tough environments where oil, fuel, water, dust, vibration and shock exist. The Model 744-S has been applied in thousands of applications where its unique design, rugged construction and high over-pressure capability has proven its long-term reliability. Standard electrical and pressure port configurations are listed below. Please consult factory for custom designs.

FEATURES

- High over-pressure capability
- High-strength stainless steel construction
- Integral pressure port snubbing
- Wide media compatibility range
- Wide operating temperature range
- Custom configuration
- UL recognized
- NEMA Type 4 rating

APPLICATIONS

- Off Road Equipment
- Industrial OEM Equipment
- Train Braking Systems
- Compactors
- Compressors

SHOCK & VIBRATION

- Shock: MIL-STD-810C, Method 516.2, Procedure 1, 40G Peak, 11 millisecond duration, Terminal Peak Sawtooth
- Vibration: MIL-STD-810C, Method 514.2, Category F

STANDARD SPECIFICATIONS

Pressure Connection	Electrical	Electrical Connection	Seal Materials	Materials	Temperature Range	Shipping Weight
1/4"-18 NPT	Snap-action Electrical Switch listed by UL and CSA At 28 VDC: 7 Amps Resistive; 4 Amps Inductive; 2 1/2 Amps Lamp Gold Contact Switches available for dry circuit applications	Lead Wire Connectors	Nitrile (Buna-N) "O"-Ring	Hydraulic Module Housing 303 Stainless Steel	-40°F to +250°F	Approximately 3 oz.
1/8"-27 NPT		Single Pole Single Throw (SPST) or Double Throw (SPDT)	Fluorocarbon (Viton™)		-40°C to +120°C	
9/16"-18 UNJF-3A		Normally Open (NO), Normally Closed (NC)		Electric Module Housing Polyphenylene Sulfide (PPS)	(Temperature Limits Change with "O"-Ring Seal Material Selection)	
Options Available		Options Available	Ethylene Propylene			

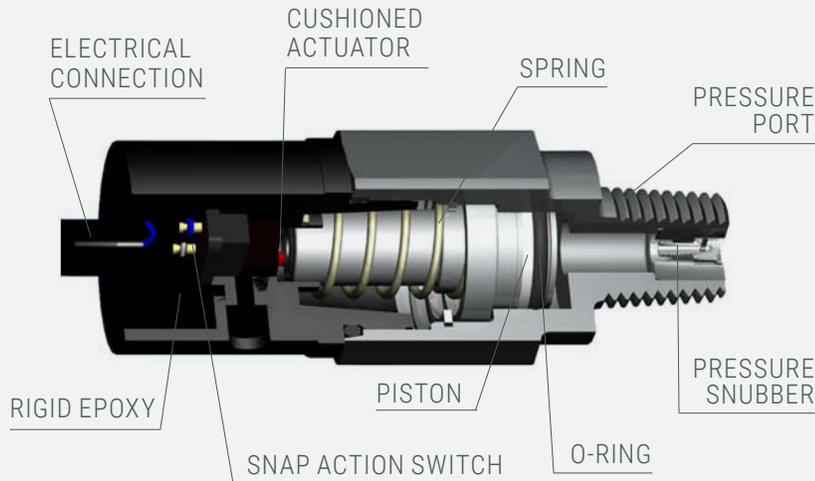
OPERATING PRESSURE DATA

Series	Range Indicator	Pressure Range	Tolerance on Set Pressure*	Dead Band*	Max System Pressure	Proof Pressure
744	1	8 - 125	±1 / ±5	4 / 14	1500	2250
	6	50 - 275	±5 / ±10	10 / 27	2400	3500
	2	75 - 500	±7 / ±15	15 / 45	3000	4500
	7	130 - 1000	±8 / ±20	20 / 95	3000	8000
	3	300 - 1500	±15 / ±40	45 / 130	4500	6800
	4	1250 - 3000	±40 / ±75	150 / 240	6500	10000
	5	2500 - 6000	±75 / ±125	250 / 425	7500	12000

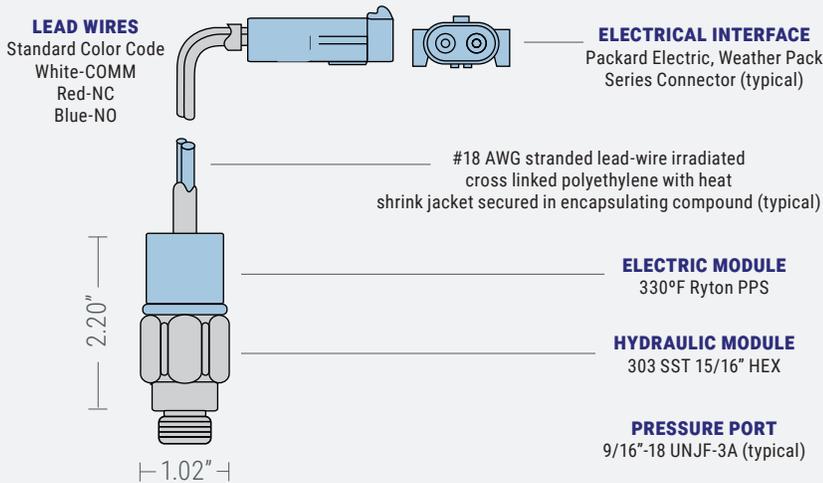
*Interpolate for intermediate pressures *Pressure in PSIG



BASIC PRINCIPLES OF DESIGN



ENVELOPE DIMENSIONS



ORDERING PROCEDURE

SERIES NUMBER	PRESSURE PORT	RANGE INDICATOR	PRESSURE SWITCH TYPE	ELECTRICAL CONNECTOR	SET PRESSURE HELD ON	SET PRESSURE	SEAL MATERIAL
744	6	6	S	03	F	0060	T
	6 = 9/16"-18 UNJF-3A	6 = 50-275 PSIG	S = Environmentally Sealed	03 = SPDT - 3 Terminal Tabs	F = Falling Pressure	60 PSIG	T = Nitrile (Buna-N)

*Insert available option number or letter as required

Example: 744.66-S03F-0060T

ORDERING SEQUENCE

SERIES

- 744 - Set pressures between 8 and 6000 PSIG
- See Operating Pressure Data table

PRESSURE CONNECTION

- 1 - 1/8"-27 NPT (Male)
- 6 - 9/16"-18 UNJF-3A (MS33656-E6)
- 2 - 1/4"-18 NPT (Male)
- Consult factory for metric and additional configurations

PRESSURE RANGE NUMBER

- See Operating Pressure Data table

TYPE

- S - Environmentally Sealed, Fixed Setting Pressure Switch

ELECTRICAL CONNECTION

- 03 - SPDT - 3 Terminal Tabs with #8-32 "SEMS" Screws
- 28 - SPDT - Weather Pack Connector with 4" lead wires (socket)
- 33 - SPDT - 3 #18 AWG lead wires 10" long
- 37 - SPDT - Weather Pack connector with 4" lead wires (pin)
- Consult factory for additional electrical configurations

SET PRESSURE TO BE HELD ON

- R - Rising Pressure
- F - Falling Pressure

SET PRESSURE

- Specify factory set pressure in 4-place PSIG (Example: 0060 for 60 PSIG)

SEAL MATERIALS

- T - Nitrile (Buna-N) - Standard
- V - Fluorocarbon (Viton™)
- E - Ethylene Propylene
- Consult factory for other available materials

SPECIAL ITEMS

- Wire, cable and cable length
- Pressure connection
- Seal materials
- Weather-proof connectors
- Gold electrical contacts for low current applications
- Consult rep or factory for special items and configurations

