

# 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
- High shock and vibration survivability
- Wide operating temperature range
- Custom configuration
- UL recognized
- NEMA Type 4 rating

## APPLICATIONS

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

## 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)	Ethylene Propylene	Electric Module Housing Polyphenylene Sulfide (PPS)	(Temperature Limits Change with "O"-Ring Seal Material Selection)	
Options Available		Options Available				

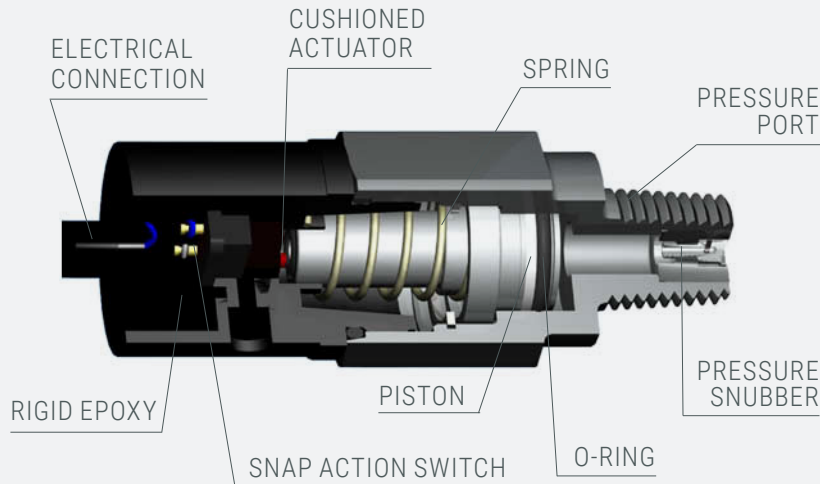
## OPERATING PRESSURE DATA

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

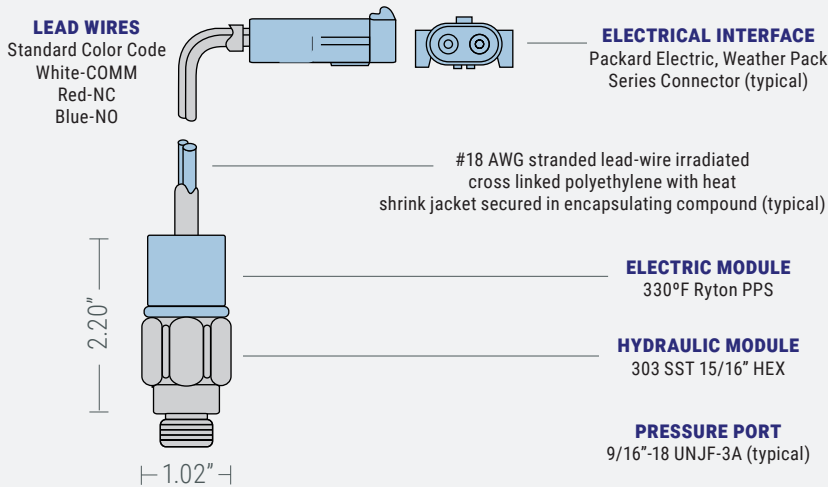
\*Interpolate for intermediate pressures \*Pressure in PSIG



## 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
<b>744</b>	<b>6</b>	<b>6</b>	<b>S</b>	<b>03</b>	<b>F</b>	<b>0060</b>	<b>T</b>
	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

- 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

