

**Fixed Setpoint Design  
Extreme Environments**

**DESCRIPTION**

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 & 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**

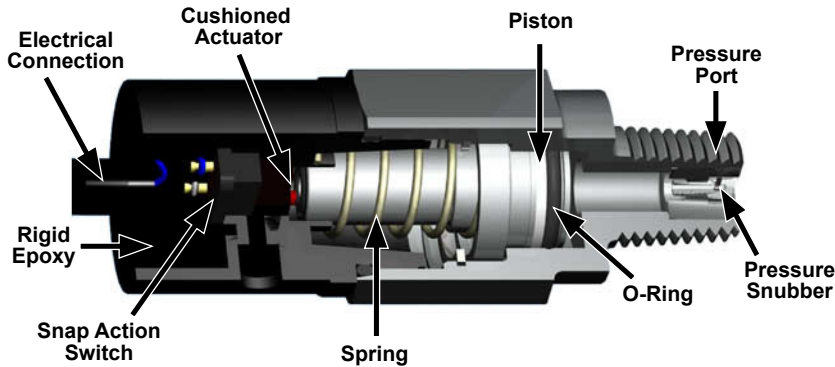
Pressure Connection	Electrical	Electrical Connection	Seal Materials	Materials	Temperature Range	Shipping Weight
1/4"-18 NPT	Snap-action Electrical Switch Listed by UL and CSA	Lead Wire Connectors	Nitrile (Buna-N) "O"- Ring	Hydraulic Module Housing 303 Stainless Steel	-40°F to + 250°F	Approximately 3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

**OPERATING PRESSURE DATA**

Series	Range Indicator	Pressure Range		Dead Band*		Max System Pressure		Proof Pressure	
		PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR
744	1	8 - 125	0.55 - 8.62	4 / 14	0.28 / 0.97	1500	103	2250	153
744	6	50 - 275	3.45 - 18.96	10 / 27	0.69 / 1.86	2400	165	3500	241
744	2	75 - 500	5.17 - 34.47	15 / 45	1.03 / 3.10	3000	207	4500	310
744	7	130 - 1000	8.96 - 68.95	20 / 95	1.38 / 6.55	3000	207	8000	552
744	3	300 - 1500	20.68 - 103.42	45 / 130	3.10 / 8.96	4500	310	6800	469
744	4	1250 - 3000	86.18 - 206.84	150 / 240	10.34 / 16.55	6500	448	10000	690
744	5	2500 - 6000	172.37 - 413.68	250 / 425	17.24 / 29.30	7500	517	12000	827

\*Interpolate for intermediate pressures

## BASIC PRINCIPLES OF DESIGN



## 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)

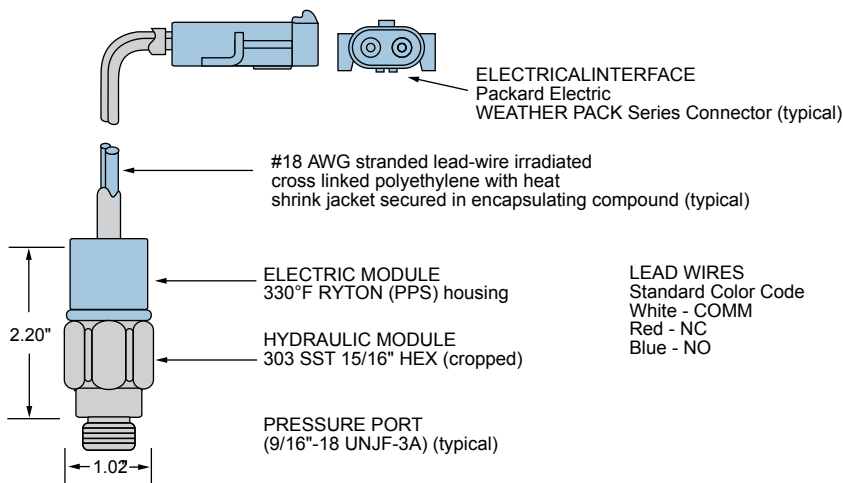
### Seal Materials

- T - Nitrile (BUNA-N) - Standard
- V - Fluorocarbon
- 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

## ENVELOPE DIMENSIONS



\*All dimensions are reference

## 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)

\*Insert available option number or letter as required

Example: 744.66-S03F-0060T