



\* UL available for certain models

## DESCRIPTION

The SMA pressure switch is ideal for many hydraulic and pneumatic applications. It utilizes a proven piston/diaphragm design to provide excellent accuracy and high proof pressures with zero leakage. Any flying leads are available with IP67 rating "CA" & "CS" option, making it an exceptional product for outdoor environments.

## FEATURES

- Snap action micro switch
- Factory set or field adjustable
- Diaphragm/piston design for longevity
- Wide adjustment range
- High proof pressures

## APPLICATIONS

- Hydraulic system control
- Material handling equipment
- Lubrication systems
- Garbage compactors

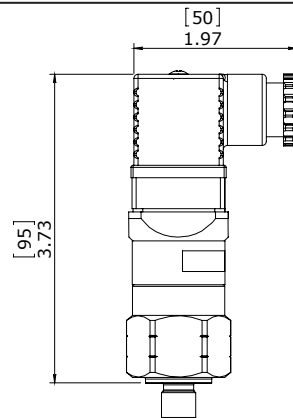
## Specifications

Electrical	5A [12/24 VDC, 125 VAC] or 3A [250 VAC] Optional: 10A or Gold Contact
Switch Type	Snap Action
Protection	DIN 43650A (18 mm): IP65 Spades: IP00 Flying Lead: IP64 Flying Lead with CA/CS: IP67
Media Temperature Range	Nitrile: -20°F to 180°F (-29°C to 82°C) Viton: 23°F to 248°F (-5°C to 120°C) HNBR: -20°F to 248°F (-29°C to 120°C) EPDM: -20°F to 248°F (-29°C to 120°C)
Ambient Temperature Range	-40°F to 180°F (-40°C to 82°C)
Mechanical Life Expectancy	1,000,000 Cycles @ 1000 PSI (69 BAR)
Diaphragm Material	Standard: Nitrile Optional: Viton, EPDM, HNBR
Housing Material	Zinc Plated Steel (Optional Stainless Steel)
Maximum Overpressure	9000 PSI (620 BAR) 4700 PSI (324 BAR) for SMA-3 model
Repeatability	+/- 2% of full set point range at 20°C (68°F)
Differential	7 - 30% of setting
Weight	0.37 lbs (0.17 kg)

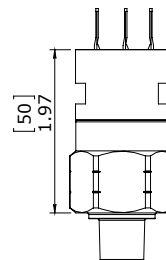
## Pressure Range

Model	Adjustment Range	
	PSI	BAR
3	10 - 35	0.7 - 2.4
4	30 - 120	2.0 - 8.0
5	75 - 300	5.2 - 21
6	300 - 1200	21 - 83
7	1000 - 3000	69 - 207
8	2000 - 5000	138 - 345

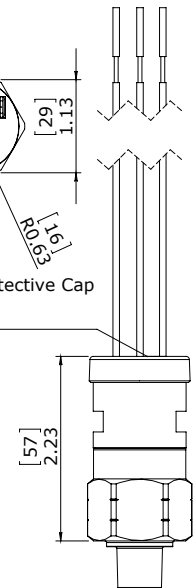
## Dimensions



HC  
DIN 43650A



SP  
1/4" Spades



FL  
Flying Leads

## Wiring Code

CONTACT	FLYING LEADS	DIN 43650 TYPE	FLWF / FLWM FLCM / FLCF / FLPM / FLPF		FLDR / FLDP	
			SPDT MODEL	SPST MODEL	SPDT MODEL	SPST MODEL
COMMON	BLACK	PIN 1	PIN A	PIN A	PIN A	PIN 1
NORMALLY CLOSED	BLUE	PIN 2	PIN C	PIN B	PIN C	PIN 2
NORMALLY OPEN	RED	PIN 3	PIN B	PIN B	PIN B	PIN 2

## Ordering Information

### Field Adjustable

**SMA** - <sup>1</sup>**4** - <sup>2</sup>**2M** - <sup>3</sup>**C** - <sup>4</sup>**HC** - <sup>5 (Optional)</sup>**1**

### Factory Preset

**SMF** - <sup>1</sup>**30F** - <sup>2</sup>**2M** - <sup>3</sup>**C** - <sup>4</sup>**HC** - <sup>5 (Optional)</sup>**1**

## 1 - Pressure Selection:

Field Adjustable - Select Model Code

Insert set point value XXXX followed by: R, F, BR, or BF

Model	Adjustment Range	
	PSI	BAR
<b>3</b>	10 - 35	0.7 - 2.4
<b>4</b>	30 - 120	2.0 - 8.0
<b>5</b>	75 - 300	5.2 - 21
<b>6</b>	300 - 1200	21 - 83
<b>7</b>	1000 - 3000	69 - 207
<b>8</b>	2000 - 5000	138 - 345

OR

Set Point	Direction	Description
XXXX	<b>R</b>	PSI Rising Pressure
	<b>F</b>	PSI Falling Pressure
	<b>BR</b>	BAR Rising Pressure
	<b>BF</b>	BAR Falling Pressure

## 2 - Thread Options:

- 2M** - 1/8 NPT male
- 4M** - 1/4 NPT male
- 2G** - 1/8 BSPP male, G1/8
- 4G** - 1/4 BSPP male, G1/4
- 4S** - 7/16-20 SAE male, with O-ring seal
- 4SLN** - 7/16-20 SAE male, with O-ring seal, adjustable
- 6S** - 9/16-18 SAE male, with O-ring seal
- M10** - M10 X 1.0 male, with O-ring seal (ISO 6149-2)
- M12** - M12 X 1.5 male, with O-ring seal (ISO 6149-2)

## 3 - Circuit:

- A** - SPST (Normally Open)
- B** - SPST (Normally Closed)
- C** - SPDT (Single Pole Double Throw : Normally Open and Normally Closed)

## 4 - Electrical Termination:

- HC** - DIN 43650A - connector type (only available in SPDT option)
- HN** - DIN 43650A 1/2" NPT Conduit (only available in SPDT option)
- FL** - Flying Lead 18" long, 18 AWG
- FLWF** - Flying Lead Weatherpack connector, female, Tower, 10" long leads
- FLWM** - Flying Lead Weatherpack connector, male, Shroud, 10" long leads
- FLDP** - Flying Lead Deutsch connector, plug, 10" long leads
- FLDR** - Flying Lead Deutsch connector, receptacle, 10" long leads
- FLCM** - Flying Lead Metripack, male, 150 series, 10" long leads
- FLCF** - Flying Lead Metripack, female, 150 series, 10" long leads
- FLPM** - Flying Lead Metripack, male, 280 series, 10" long leads
- FLPF** - Flying Lead Metripack, female, 280 series, 10" long leads
- SP** - 1/4" Spade



## 5 - Options (Omit if not required):

- 1** - Viton® Diaphragm
- 2** - EPDM Diaphragm
- 3** - 316 Stainless Steel Housing
- 4** - HNBR Diaphragm
- 7** - Gold Contact, Snap Action Microswitch @ 20 mA/12 VDC
- 8** - 10 amp, Snap Action Microswitch @ 10(2) 125 VAC (inductive), 6(2) 250 VAC (inductive)
- 20** - Seal Adjustment Screw
- OC** - Oxygen Cleaned
- SR** - Snubber
- CA** - IP67 rated protective cover with a removable plug (For adjustable switches SMA flying lead model)
- CS** - IP67 rated protective cover (For factory set switches, SMF flying lead model)

Note: Please see page 62 for other available options