



Sensata

Technologies

6PS SERIES



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6PS SERIES

HERMETIC STAINLESS STEEL PRESSURE SWITCH

Introduction

KLIXON® 6PS series stainless steel pressure switch is a snap-acting, all welded device with hermetically sealed switch contacts. All switch components that are exposed to the fluid stream or external environment are made from 300 series stainless steel or brass to ensure maximum corrosion protection. The design utilizes the snap-action disc in tandem with the snap-action switch contacts to provide full contact force even during high shock and vibration regardless of applied pressure. These properties, when combined with the small size and light weight, provide incredible flexibility of design. Sensata currently offers over 1,000 existing 6PS package designs.

KLIXON® 6PS pressure switches provide low oil pressure indication on multiple commercial aircraft, including Boeing 777 and 787, Airbus A350, Bombardier C-Series, and others. Other applications include pressure indication for gas and oil industry and nuclear power plants.



Features

- Hermetically sealed per MIL-E-5400 paragraph 6.3.10
- Covers actuation range of 45 to 700 PSIA
- Maximum corrosion resistance under hostile conditions
 - 300 series stainless steel construction for all environment exposed parts
 - Stainless steel and brass construction for media exposed parts
- High vibration resistance
- 8000 psi minimum burst pressure
- SPDT switch configuration
- Available in a wide range of standard and custom configurations



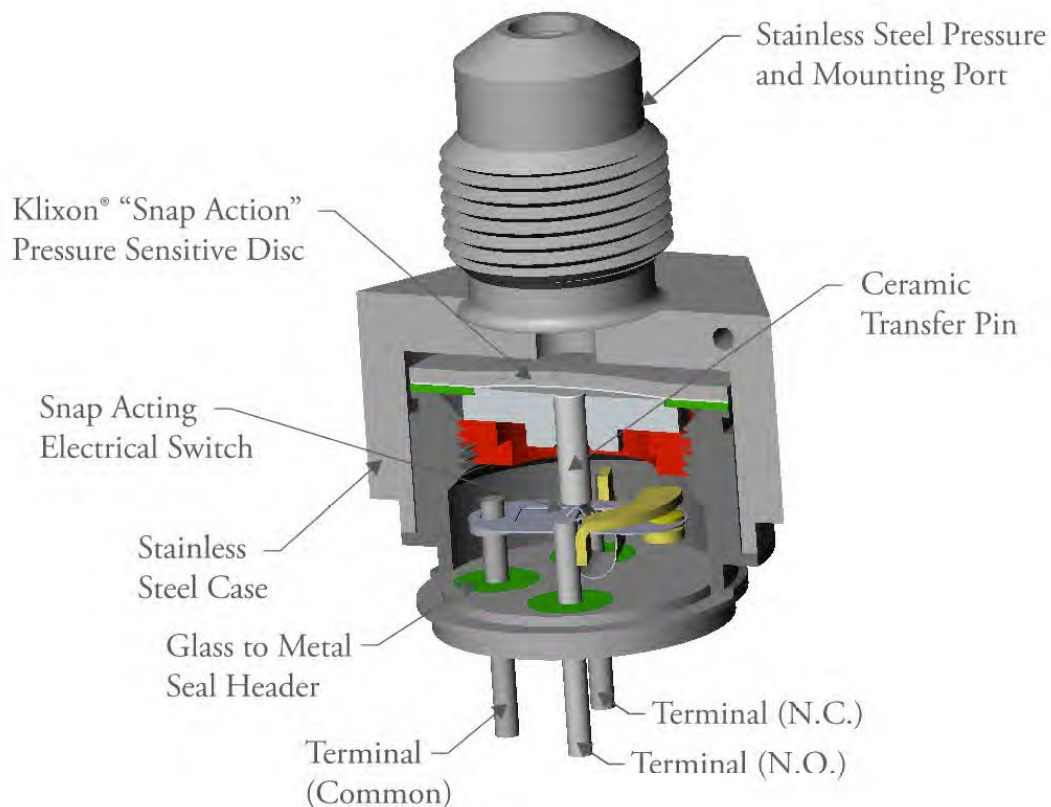
SPECIFICATIONS

Temperature Rating	-65°F to 275°F (-53.8°C to +135°C)
Vibration Resistance	25 G, 20–2000 cps (no contact chatter in excess of 10 microseconds)
Burst Pressure	8,000 PSI minimum
Proof Pressure	8 times actuating pressure
Life @ Rated Current	50,000 cycles
Current Capacity	Resistive : 5amp @ 28 VDC Inductive : 2amp @ 28 VDC Lamp : 1amp @ 28 VDC
Dielectric Strength	Terminal to terminal : 1000 vrms Terminal to case : 1000 vrms
Weight	Without Leads : 30 grams maximum With Connector : 60 grams maximum
Metal Parts Exposed to Pressure and Environment	300 series stainless steel CA-360-2 (1/2 hard leaded brass)
Potting Material	Epoxy resin

Pressure Specifications

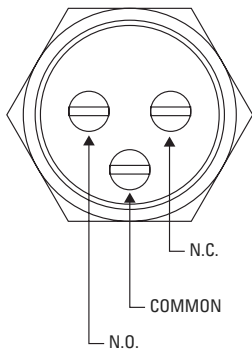
Range of Actuation Pressure Settings	at STP from 45 PSIA to 700 PSIA
Range of Deactuation Pressure Settings	Standard : 60% to 85% of actuation pressure Special : 85% to 90% of actuation pressure
Range of Tolerances on Actuation & Deactuation Pressure	8,000 Standard : up to $\pm 6\%$ of actuation pressure (± 10 PSI minimum) Special : up to $\pm 4\%$ of actuation pressure (± 5 PSI minimum) <i>Choice of deactuation pressure setting and tolerances affects price minimum</i>

Actuation Pressure (PSIA)			Deactuation Pressure (PSIA)			
Pressure	Standard Tolerance	Special Tolerance	Standard 60% to 85%	Special 85% to 90%	Standard Tolerance	Special Tolerance
45 to 134	± 10	± 5	28 to 112	40 to 117	± 10	± 5
135 to 164	± 10	± 7	83 to 137	117 to 144	± 10	± 7
165 to 249	± 15	± 10	101 to 208	142 to 216	± 15	± 10
250 to 369	± 20	± 10	153 to 310	217 to 324	± 20	± 15
370 to 429	± 25	± 15	225 to 361	319 to 378	± 25	± 20
430 to 489	± 30	± 20	261 to 412	370 to 432	± 30	± 20
490 to 549	± 35	± 25	297 to 463	421 to 486	± 35	± 25
550 to 599	± 40	± 25	333 to 510	472 to 540	± 40	± 25
600 to 700	Consult Factory					

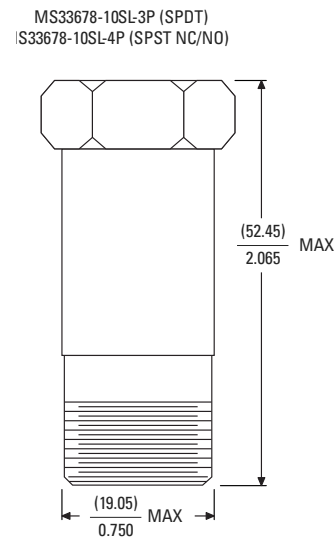
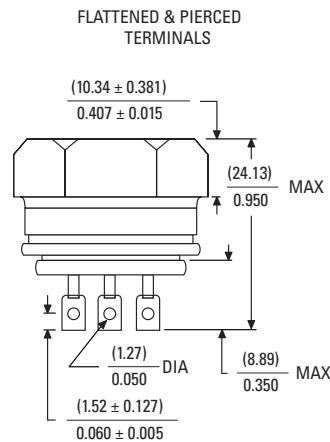

DIAGRAM


COMMON CONFIGURATIONS

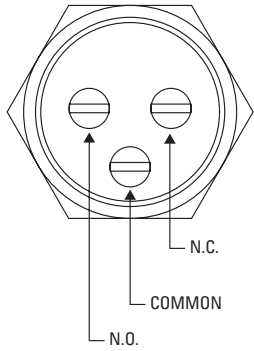
All dimensions are in inches [millimeter].



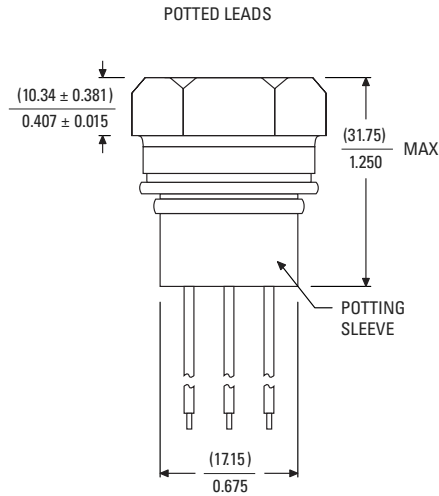
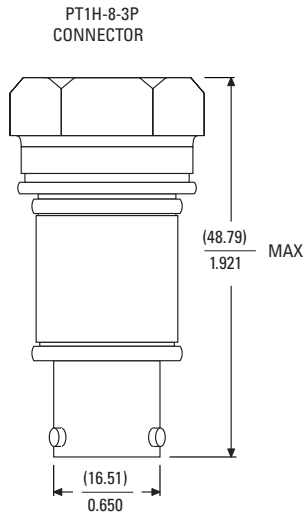
Lockwire holes are $.047 \pm .006$ [$1.19 \pm .15$] diameter. Located $.050 \pm .008$ [$1.27 \pm .20$] from port face of hex



		SPDT	SPDT	SPDT	SPDT	SPST	SPST
1/8" OD Tubing MS 33656 -E2		6PS100 without lock-wire holes	6PS150 with lock-wire holes	6PS102 without lock-wire holes	6PS152 with lock-wire holes	6PS103 without lock-wire holes	6PS153 with lock-wire holes
3/16" OD Tubing MS 33656 -E3		6PS200 without lock-wire holes	6PS250 with lock-wire holes	6PS202 without lock-wire holes	6PS252 with lock-wire holes	6PS203 without lock-wire holes	6PS253 with lock-wire holes
1/4" OD Tubing MS 33656 -E4		6PS300 without lock-wire holes	6PS350 with lock-wire holes	6PS302 without lock-wire holes	6PS352 with lock-wire holes	6PS303 without lock-wire holes	6PS353 with lock-wire holes
5/16" OD Tubing MS 33656 -E5		6PS400 without lock-wire holes	6PS450 with lock-wire holes	6PS402 without lock-wire holes	6PS452 with lock-wire holes	6PS403 without lock-wire holes	6PS453 with lock-wire holes
3/8" OD Tubing MS 33656 -E6		6PS500 without lock-wire holes	6PS550 with lock-wire holes	6PS502 without lock-wire holes	6PS552 with lock-wire holes	6PS503 without lock-wire holes	6PS553 with lock-wire holes
1/8" Pipe Fitting MS 33677		6PS600 without lock-wire holes	6PS650 with lock-wire holes	6PS602 without lock-wire holes	6PS652 with lock-wire holes	6PS603 without lock-wire holes	6PS653 with lock-wire holes
1/4" Pipe Fitting MS 33677		6PS700 without lock-wire holes	6PS750 with lock-wire holes	6PS702 without lock-wire holes	6PS752 with lock-wire holes	6PS703 without lock-wire holes	6PS753 with lock-wire holes



Lockwire holes are .047 – .006 [1.19 – .15] diameter. Located .050 – .008 [1.27 – .20] from port face of hex



		SPST	SPST	SPDT	SPDT	SPST (NC)	SPST (NC)	SPST (NO)	SPST (NO)
1/8 OD Tubing MS 33656 -E2		6PS104 without lock-wire holes	6PS154 with lock-wire holes	6PS101 without lock-wire holes	6PS151 with lock-wire holes	6PS105 without lock-wire holes	6PS155 with lock-wire holes	6PS106 without lock-wire holes	6PS156 with lock-wire holes
3/16 OD Tubing MS 33656 -E3		6PS204 without lock-wire holes	6PS254 with lock-wire holes	6PS201 without lock-wire holes	6PS251 with lock-wire holes	6PS205 without lock-wire holes	6PS255 with lock-wire holes	6PS206 without lock-wire holes	6PS256 with lock-wire holes
1/4 OD Tubing MS 33656 -E4		6PS304 without lock-wire holes	6PS354 with lock-wire holes	6PS301 without lock-wire holes	6PS351 with lock-wire holes	6PS305 without lock-wire holes	6PS355 with lock-wire holes	6PS306 without lock-wire holes	6PS356 with lock-wire holes
5/16 OD Tubing MS 33656 -E5		6PS404 without lock-wire holes	6PS454 with lock-wire holes	6PS401 without lock-wire holes	6PS451 with lock-wire holes	6PS405 without lock-wire holes	6PS455 with lock-wire holes	6PS406 without lock-wire holes	6PS456 with lock-wire holes
3/8 OD Tubing MS 33656 -E6		6PS504 without lock-wire holes	6PS554 with lock-wire holes	6PS501 without lock-wire holes	6PS551 with lock-wire holes	6PS505 without lock-wire holes	6PS555 with lock-wire holes	6PS506 without lock-wire holes	6PS556 with lock-wire holes
1/8 Pipe Fitting MS 33677		6PS604 without lock-wire holes	6PS654 with lock-wire holes	6PS601 without lock-wire holes	6PS651 with lock-wire holes	6PS605 without lock-wire holes	6PS655 with lock-wire holes	6PS606 without lock-wire holes	6PS656 with lock-wire holes
1/4 Pipe Fitting MS 33677		6PS704 without lock-wire holes	6PS754 with lock-wire holes	6PS701 without lock-wire holes	6PS751 with lock-wire holes	6PS705 without lock-wire holes	6PS755 with lock-wire holes	6PS706 without lock-wire holes	6PS756 with lock-wire holes



ORDERING OPTIONS

Example : 6PS204 S 260 L - 180 E

Design Type	6PS204	S	260	L	-	180	E
Actuation Pressure Tolerance							
A: ±5	T: ±25						
C: ±7	U: ±30						
F: ±10	V: ±35						
L: ±15	W: ±40						
S: ±20							
Actuation Pressure							
Enter a 3-digit value from 45 PSIA to 700 PSIA. If under 100PSIA, place a "0" in front, for example 45PSIA = 045							
Deactuation Pressure Tolerance							
A: ±5	T: ±25						
C: ±7	U: ±30						
F: ±10	V: ±35						
L: ±15	W: ±40						
S: ±20							
Deactuation Pressure							
Enter a 3-digit value from 45 PSIA to 700 PSIA. If under 100PSIA, place a "0" in front, for example 45PSIA = 045							
Lead Length Code (if applicable)							
D: 6"	J: 36"						
E: 12"	K: 42"						
F: 18"	L: 48"						
G: 24"	M: 60"						
H: 30"	N: 72"						

See pressure table for standard tolerances for the actuation and deactuation pressures.

Note, after building the part number, consult the factory for pricing and to confirm pressure specifications are valid.



WARNINGS



HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

Failure to follow these instructions will result in death or serious injury

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