

KLIXON® | 6PS & 7PS Series

Hermetic Stainless Steel Pressure Switch

FEATURES

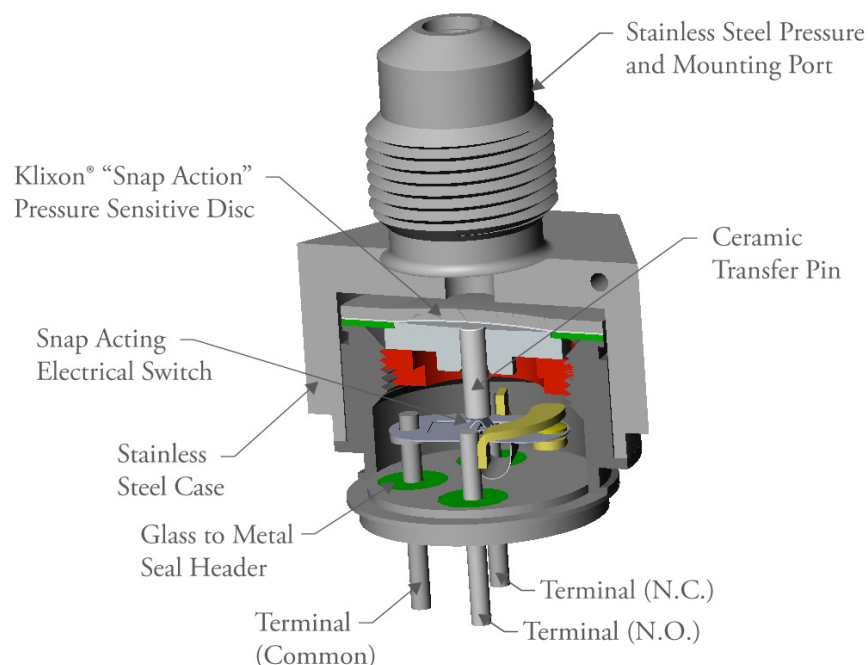
- Hermetically sealed per MIL-E-5400 paragraph 6.3.10
- Covers actuation range of 45 to 700 PSIA
- Maximum corrosion resistance under hostile conditions
 - 300 series stainless steel construction for all environment exposed parts
 - Stainless steel and brass construction for media exposed parts
- High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

INTRODUCTION

The Klixon® 6PS and 7PS series precision pressure switches are snap-acting, all-welded devices with hermetically sealed switch contacts. Our pressure switches were developed for applications in aerospace and electronics where high reliability and/or resistance to severe environments is required. To ensure maximum corrosion resistance under hostile conditions, all parts exposed to the pressure media and the environment are made of brass or 300 series stainless steel — no rubber parts are used.

Small and lightweight, 6PS and 7PS Series switches can be mounted by their pressure ports alone, allowing maximum flexibility of design. Full contact force is maintained even during high shock and vibration—regardless of applied pressure—because the positive, snap-action disc works in tandem with snap-action switch contacts.

There are over 1,000 existing 6PS switch package designs. The 6PS is ideal for highly customized package and performance needs. The 7PS is ideal for higher volume standard solution needs.



SPECIFICATIONS

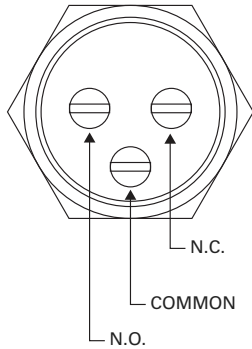
Temperature Rating	-65°F to 275°F (-53.8°C to +135°C)
Vibration Resistance	25 G, 20–2000 cps (no contact chatter in excess of 10 microseconds)
Burst Pressure	8,000 PSI minimum
Proof Pressure	8 times actuating pressure
Life @ Rated Current	50,000 cycles
Current Capacity	Resistive : 5amp @ 28 VDC Inductive : 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 & 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	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</i>

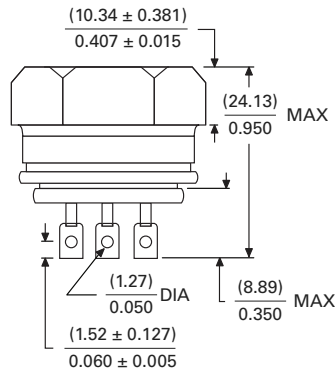
Actuation Pressure (PSIA)			Deactuation Pressure (PSIA)			
Pressure	Standard Tolerance	Special Tolerance	Standard 60% to 85%	Special 85% to 90%	Standard Tolerance	Special Tolerance
45 to 134	± 10	± 5	28 to 112	40 to 117	± 10	± 5
135 to 164	± 10	± 7	83 to 137	117 to 144	± 10	± 7
165 to 249	± 15	± 10	101 to 208	142 to 216	± 15	± 10
250 to 369	± 20	± 15	153 to 310	217 to 324	± 20	± 15
370 to 429	± 25	± 20	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					

6PS SERIES - DESIGN TYPE

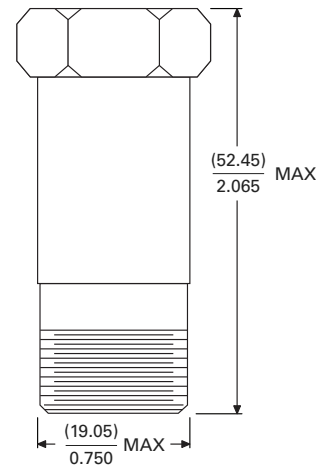


Lockwire holes are
.047 ± .006 [1.19 ± .15] diameter.
Located .050 ± .008 [1.27 ± .20]
from port face of hex

FLATTENED & PIERCED TERMINALS

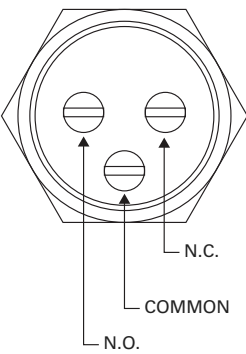
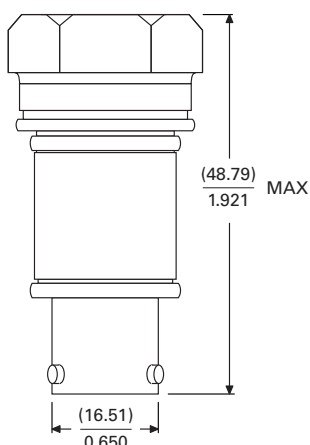
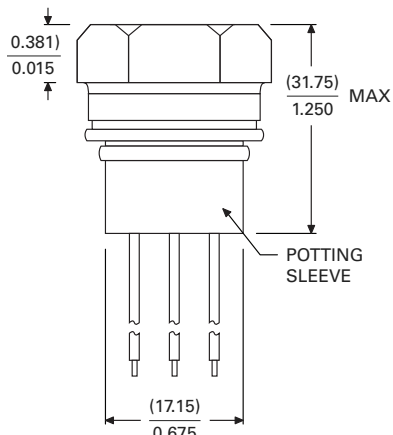
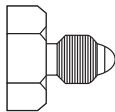
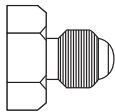
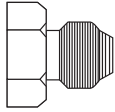
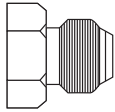
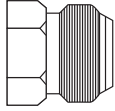
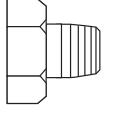
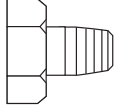


MS33678-10SL-3P (SPDT) IS33678-10SL-4P (SPST NC/NO)



		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

6PS SERIES - DESIGN TYPE

 <p>Lockwire holes are .047 ± .006 [1.19 ± .15] diameter. Located .050 ± .008 [1.27 ± .20] from port face of hex</p>		 <p>PT1H-8-3P CONNECTOR</p>		 <p>POTTED LEADS</p>					
		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

6PS PART NUMBER BUILDER

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.

	6PS204	S	260	L	180	E
1. Design Type						
2. Actuation Pressure Tolerance						
A = ± 5		T = ± 25				
C = ± 7		U = ± 30				
F = ± 10		V = ± 35				
L = ± 15		W = ± 40				
S = ± 20						
3. 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						
2. Deactuation Pressure Tolerance						
A = ± 5		T = ± 25				
C = ± 7		U = ± 30				
F = ± 10		V = ± 35				
L = ± 15		W = ± 40				
S = ± 20						
5. 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						
6. 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"				

7PS SERIES - DESIGN TYPE

<div> <div>Terminals</div> <div>Pressure Port</div> </div>		FLATTENED & PIERCED TERMINALS 	POTTED LEADS 	PT1H-8-3P CONNECTOR
1/8" OD Tubing MS 33656 -E2 (1" HEX)		7PS100	7PS101	7PS102
3/16" OD Tubing MS 33656 -E3 (1" HEX)		7PS200	7PS201	7PS202
1/4" OD Tubing MS 33656 -E4 (1" HEX)		7PS300	7PS301	7PS302
5/16" OD Tubing MS 33656 -E5 (1" HEX)		7PS400	7PS401	7PS402
3/8" OD Tubing MS 33656 -E6 (1" HEX)		7PS500	7PS501	7PS502
1/8" Pipe Fitting MS 33677 (1" HEX)		7PS600	7PS601	7PS602
1/4" Pipe Fitting MS 33677 (1" HEX)		7PS700	7PS701	7PS702
1" O.D. x 0.040" Flange Mount		7PS800	7PS801	7PS802

7PS PART NUMBER BUILDER

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.

7PS101

S

260

L

180

E

1. Design Type

2. Actuation Pressure Tolerance

3. Actuation Pressure

2. Deactuation Pressure Tolerance

5. Deactuation Pressure

6. Lead Length Code (if applicable)

A = ± 5

C = ± 7

F = ± 10

L = ± 15

S = ± 20

T = ± 25

U = ± 30

V = ± 35

W = ± 40

Enter a 3-digit value from 45 PSIA to 700 PSIA. If under 100PSIA, place a "0" in front, for example 45PSIA = 045

Enter a 3-digit value from 45 PSIA to 700 PSIA. If under 100PSIA, place a "0" in front, for example 45PSIA = 045

D = 6"

E = 12"

F = 18"

G = 24"

H = 30"

J = 36"

K = 42"

L = 48"

M = 60"

N = 72"