



KLIXON® | 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® 7PS Series precision pressure switches are snap-acting, all-welded devices with hermetically sealed switch contacts. The 7PS was 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, 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.

Now you can completely specify a Klixon custom built pressure switch designed to satisfy your unique requirements. Our building block approach utilizes standard components and provides a wide variety of options... while retaining the cost advantage of off-the-shelf devices.

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 —————					

DESIGN TYPE

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

STANDARD 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.

