

# Set Points from 0.5 to 150 psi

## 5000 Series Extended Duty Pressure Switch With Direct Action Blade Contacts

The 5000 Series switch is specifically designed to stand up to extended duty applications. This switch is factory set but capable of field adjustment. It features a Kapton diaphragm for compatibility with a wide variety of fluids, and various terminations including a Metri-Pack connector that forms a tight seal when connected. Among the outstanding design benefits are its durable construction, compact size, and enhanced set point integrity.

### Standard Specifications

**Type:** Direct action blade contact

**Contacts:** Silver alloy, gold plated

**Set Point:** Factory set from 0.5 to 150 PSI

**Operating Pressure:** 150 PSI for 0.5-24 PSI set point range, 250 PSI for 25-150 PSI set point range

**Proof Pressure:** 500 PSI

**Burst Pressure:** 750 PSI for 0.5-24 PSI set point range, 1250 PSI for 25-150 PSI set point range.



**Switch Boot P/N 79380 for Vacuum and Pressure**

### Ratings:

|            |          |         |
|------------|----------|---------|
| Resistive: | 15 AMP-  | 6 VDC   |
|            | 8 AMP-   | 12 VDC  |
|            | 4 AMP-   | 24 VDC  |
| Inductive: | 1 AMP-   | 120 VAC |
|            | 0.5 AMP- | 240 VAC |

**Diaphragm:** Polyimide film

**Temperature**

**Range:** -40° F to + 250° F

**Connector:** 1/8 -27 NPT male thread

**Terminals:** #8-32 screws, 1/4" blade,

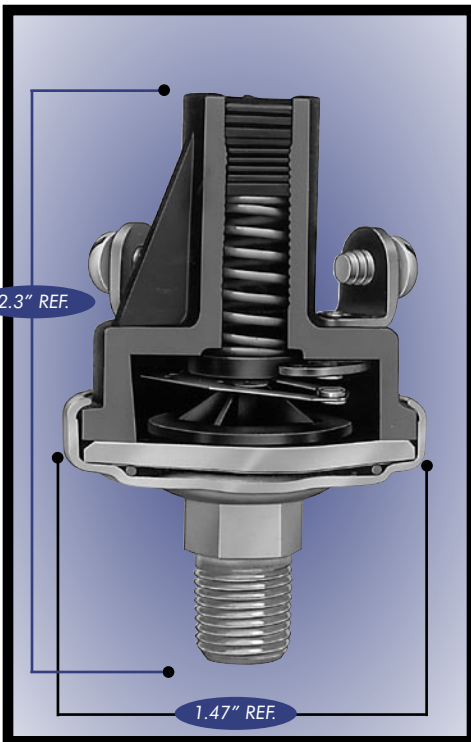
280 Series Metri-Pack SPST-N.O., N.C., 1 circuit adjustable dual circuit, or 2 circuits adjustable dual circuit.

Also available are N.O./N.O. dual circuit and N.C./N.C. dual circuit.

**Base:** Plated Steel

**Cover:** Glass reinforced polyester

**Options:** Brass, plastic or stainless steel base; various base connector thread sizes; wire leads (potted & sealed).



**5000 Series Switch with Screw Terminals**



**5000 Series Switch with Metri-Pack Terminal**

### NOTE: OPERATING MEDIA (PRESSURE SWITCH)

The pressure switch is designed to operate with air, motor oils, transmission oils, jet fuels and other similar hydrocarbon media.

## 5000 Series Pressure Switch With Standard Terminal

|                   |                |           | Single Circuit<br>1 Terminal |       | Single Circuit<br>2 Terminals |       | Dual Circuit<br>One circuit adjustable <sup>1</sup> |       | Dual Circuit<br>Both circuits adjustable <sup>2</sup> |             |       |
|-------------------|----------------|-----------|------------------------------|-------|-------------------------------|-------|---|-------|---|-------------|-------|
| Contact Setting   | Factory Set At | Circuitry | Part Number                  |       | Part Number                   |       | Part Number   |       | Contact Setting <sup>3</sup>                          | Part Number |       |
|                   |                |           | Screw                        | Blade | Screw                         | Blade | Screw   | Blade |   | Screw       | Blade |
| 0.5-1 PSI<br>±0.3 | 1 PSI          | N.O.      | 78630                        | 78631 | 78628                         | 78629 | 78711   | 78712 | 3-4 PSI<br>±0.5                                       | 76081       | 76086 |
|                   |                | N.C.      | 78634                        | 78635 | 78632                         | 78633 |   |       |   |             |       |
| 1.1-3 PSI<br>±0.5 | 2 PSI          | N.O.      | 78142                        | 78399 | 76051                         | 76056 | 76071   | 76076 | 5-8 PSI<br>±1   | 76582       | 76590 |
|                   |                | N.C.      | 78149                        | 78406 | 76061                         | 76066 |   |       |   |             |       |
| 3.1-7 PSI<br>±1   | 4 PSI          | N.O.      | 78143                        | 78400 | 76575                         | 76583 | 76579   | 76587 | 9-24 PSI<br>±2  | 76082       | 76087 |
|                   |                | N.C.      | 78150                        | 78407 | 76577                         | 76585 |   |       |   |             |       |
| 8-13 PSI<br>±2    | 10 PSI         | N.O.      | 78144                        | 78401 | 76576                         | 76584 | 76580   | 76588 | 25-50 PSI<br>±3                                       | 76083       | 76088 |
|                   |                | N.C.      | 78151                        | 78408 | 76578                         | 76586 |   |       |   |             |       |
| 14-24 PSI<br>±3   | 15 PSI         | N.O.      | 78145                        | 78402 | 76052                         | 76057 | 76072   | 76077 | 51-90 PSI<br>+5/-2                                    | 76084       | 76089 |
|                   |                | N.C.      | 78152                        | 78409 | 76062                         | 76067 |   |       |   |             |       |
| 25-50 PSI<br>±5   | 35 PSI         | N.O.      | 78146                        | 78403 | 76053                         | 76058 | 76073   | 76078 | 91-150 PSI<br>+8/-2                                   | 76085       | 76090 |
|                   |                | N.C.      | 78153                        | 78410 | 76063                         | 76068 |   |       |   |             |       |
| 51-90 PSI<br>±7   | 60 PSI         | N.O.      | 78147                        | 78404 | 76054                         | 76059 | 76074   | 76079 |   |             |       |
|                   |                | N.C.      | 78154                        | 78411 | 76064                         | 76069 |   |       |   |             |       |
| 91-150 PSI<br>±10 | 100 PSI        | N.O.      | 78148                        | 78405 | 76055                         | 76060 | 76075   | 76080 |   |             |       |
|                   |                | N.C.      | 78155                        | 78412 | 76065                         | 76070 |   |       |   |             |       |

## 5000 Series Pressure Switch With Metri-Pack Terminal

|                    |                |           | Single Circuit<br>(Mates with Packard<br>P/N 15300027) |             | Dual Circuit<br>One circuit adjustable <sup>1</sup><br>(Mates with Packard<br>P/N 12034147) |             | Dual Circuit<br>Both circuits adjustable <sup>2</sup><br>(Mates with Packard<br>P/N 12034147) |  |
|--------------------|----------------|-----------|--|-------------|---|-------------|---|--|
| Contact Setting    | Factory Set At | Circuitry | Part Number  | Part Number | Contact Setting <sup>3</sup>  | Part Number |   |  |
| 1-3 PSI<br>±0.5    | 2 PSI          | N.O.      | 77029  | 77038       | 3-4 PSI<br>±0.5   | 77047       |   |  |
|                    |                | N.C.      | 77020  |             |   |             |   |  |
| 4-6 PSI<br>±1      | 5 PSI          | N.O.      | 77030  | 77039       | 5-10 PSI<br>±1  | 77048       |   |  |
|                    |                | N.C.      | 77021  |             |   |             |   |  |
| 7-12 PSI<br>±2     | 10 PSI         | N.O.      | 77031  | 77040       | 11-24 PSI<br>±2   | 77049       |   |  |
|                    |                | N.C.      | 77022  |             |   |             |   |  |
| 13-24 PSI<br>±3    | 20 PSI         | N.O.      | 77032  | 77041       | 25-46 PSI<br>±3   | 77050       |   |  |
|                    |                | N.C.      | 77023  |             |   |             |   |  |
| 25-46 PSI<br>±5    | 35 PSI         | N.O.      | 77033  | 77042       | 47-76 PSI<br>+5/-2  | 77051       |   |  |
|                    |                | N.C.      | 77024  |             |   |             |   |  |
| 47-76 PSI<br>±6    | 60 PSI         | N.O.      | 77034  | 77043       | 77-100 PSI<br>+7/-2   | 77052       |   |  |
|                    |                | N.C.      | 77025  |             |   |             |   |  |
| 77-100 PSI<br>±7   | 85 PSI         | N.O.      | 77035  | 77044       | 101-126 PSI<br>+9/-2  | 77053       |   |  |
|                    |                | N.C.      | 77026  |             |   |             |   |  |
| 101-126<br>±9      | 115 PSI        | N.O.      | 77036  | 77045       | 127-150 PSI<br>+10/-2   | 77054       |   |  |
|                    |                | N.C.      | 77027  |             |   |             |   |  |
| 127-150 PSI<br>±10 | 135 PSI        | N.O.      | 77037  | 77046       |   |             |   |  |
|                    |                | N.C.      | 77028  |             |   |             |   |  |

**Notes:**

- The N.C. circuit is the reference circuit for the dual circuit switch; the normally open circuit is not adjusted. The expected dead band between the N.C. & N.O. circuit is shown in the chart below. For applications requiring the normally open circuit as the reference circuit the N.C. circuit is not adjusted.
- Switch may be adjusted so that:
  - N.C. circuit opens before N.O. circuit closes.
  - N.C. and N.O. circuit have same set point.
  - N.O. circuit closes before the N.C. circuit opens. (There is no dead band and both circuits are on for a brief period of time.)
- The tolerances given in the table are applicable to a switch adjusted so that the N.O. circuit closes before the N.C. circuit opens and applies to the N.C. circuit. The N.O. set point and tolerances are such that a minimum overlap of 1 PSI exists during which both circuits are on.

Note 1: Expected Dead Band (Higher than N.C. circuit)

| Contact Setting | Dead Band |
|-----------------|-----------|
| 0.5-3 PSI       | 1.5 PSI   |
| 4-7 PSI         | 2.5 PSI   |
| 8-13 PSI        | 3.5 PSI   |
| 14-24 PSI       | 8 PSI     |
| 25-50 PSI       | 15 PSI    |
| 51-90 PSI       | 23 PSI    |
| 91-150 PSI      | 40 PSI    |