

## Compact Pressure Switch

Series 7000

### Features

- ▶ Compact size
- ▶ Multiple electrical connections
- ▶ True SPDT snap action micro-switch
- ▶ NEMA 1 or 4X
- ▶ Factory preset or field adjustable
- ▶ Available in corrosion-resistant thermoplastic, stainless steel or brass

### Applications

- ▶ Pool & spa heaters
- ▶ Beverage dispensers
- ▶ Air proving in HVAC systems
- ▶ Engine monitoring
- ▶ Hydraulic power units
- ▶ Mobile hydraulics
- ▶ Pump or compressor control
- ▶ Hydraulic and pneumatic braking systems



### General Specifications\*

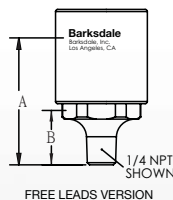
|  |   |
|--|---|
| <b>Electrical Characteristics:</b>   | All models incorporate Underwriters' Laboratories, Inc. and CSA Listed single pole double throw snap-action switching elements.   |
| <b>Accuracy:</b>   | ±0.5 psi for range "0"<br>±1 psi for range "1"<br>±8% typical for ranges "2" to "7"   |
| <b>Switch:</b>   | SPDT snap action; single circuit  |
| <b>Wetted Parts:</b><br>Diaphragm type:<br>(range 0, 1, 2, 3)<br><br>Piston type:<br>(ranges 4, 5, 6, 7) | NORYL® plastic fitting with NORYL® plastic housing, or 300 series stainless steel fitting, or brass fitting and Buna-N diaphragm.<br><br>300 series stainless steel or brass fitting. |
| <b>Electrical Connection:</b>  | See product configurator for electrical connection options.   |
| <b>Enclosure Ratings:</b>  | NEMA 1, NEMA 4X   |
| <b>Pressure Connection:</b>  | 1/4" NPT (standard)   |

\* See product configurator for additional options.

|   |  |
|---|--|
| <b>Approvals:</b><br>UL:                              | Recognized components per UL 508 standard, industrial control equipment.                     |
| CSA:  | Listed per CSA Guide 380-W1.16 class 3231  |
| FDA/NSF:  | Certified per NSF 18   |
| PED (European):                                       | Compliant to PED 97/23/EC standard   |
| <b>Temperature Range:</b><br>Operating:               | -40° to +180°F - piston type<br>0° to 180°F - diaphragm type                                 |
| Storage:  | -40° to +200°F   |
| <b>EMI/RFI:</b><br>Vibration:                         | 10 g's per MIL-STD 202, method 204, condition A  |
| Shock:  | 50 g's per MIL-STD 202, method 213, condition A  |
| <b>Adjustment Instructions:</b><br>Pressure Setpoint: | Turn adjustment screw clockwise to increase pressure; counterclockwise to decrease pressure. |
| <b>Shipping Weight:</b>                               | Plastic: approximate .10 lbs.<br>Stainless steel: approximate .25 lbs.                       |

### SS Fitting Dimension

| FITTING    | DIMENSION 'A' | DIMENSION 'B' |
|------------|---------------|---------------|
| 1/4 NPT    | 2.25 [57.15]  | .75 [19.05]   |
| 1/8 NPT    | 2.62 [66.55]  | 1.10 [27.94]  |
| * 7/16 NPT | 2.25 [57.15]  | .75 [19.05]   |
| * G 1/4    | 2.25 [57.15]  | .75 [19.05]   |



FOR (-6 AND -7) PRESSURE RANGE BRASS FITTINGS, ADD .51 LENGTH TO ABOVE DIMENSIONS 'A' AND 'B'

### Wiring Code

| CONTACT         | FREE LEADS | PVC GRAY CABLE | TYPE 'SJO' CABLE | DIN 43650 TYPE CONNECTOR |
|-----------------|------------|----------------|------------------|--------------------------|
| COMMON          | PURPLE     | WHITE          | WHITE            | POSITION 1               |
| NORMALLY OPEN   | RED        | RED            | GREEN            | POSITION 3               |
| NORMALLY CLOSED | BLUE       | BLACK          | BLACK            | POSITION 2               |

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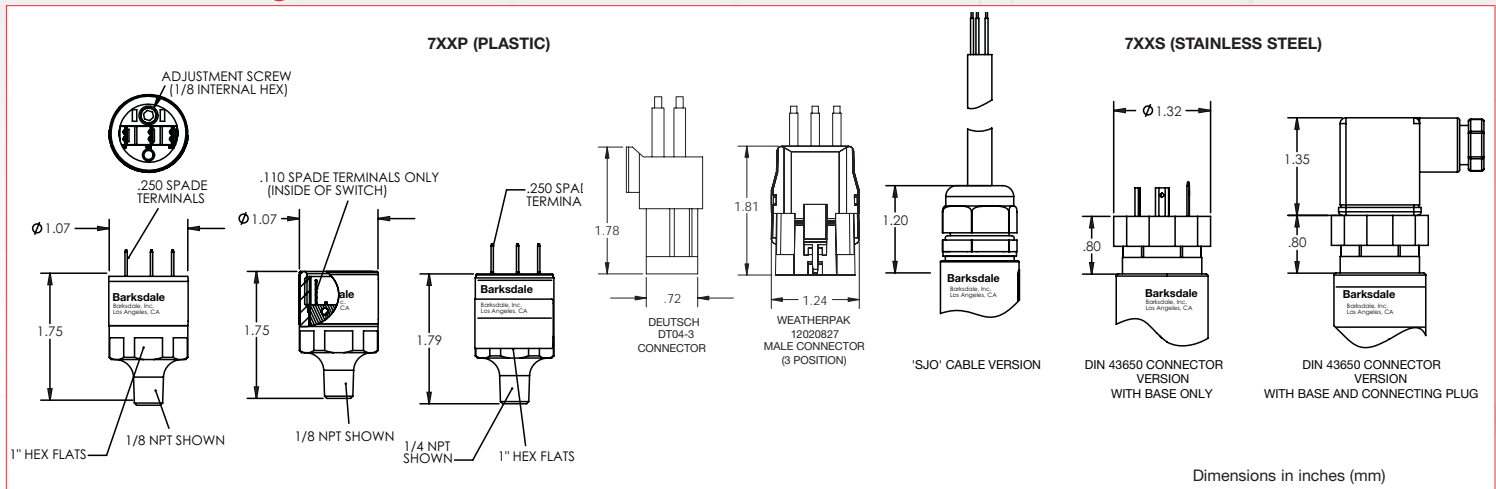
Barksdale, Inc./Barksdale GmbH  
A Subsidiary of Crane Co.



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# Series 7000

## Technical Drawing



## Product Configurator

Example 72 4 S -2 4 -1 B

### Options

-Wxxx Extra wire length (xxx = inches)

### Basic Configuration

|    |                                       |
|----|---------------------------------------|
| 71 | Factory set & permanently locked      |
| 72 | Field adjustable                      |
| 73 | Field adjustable with Factory pre-set |

### Set Point

|      |  |
|------|--|
| -XXX | Set point (not required for field adjustable models) |
| R    | Rising pressure                                      |
| F    | Falling pressure                                     |

### Pressure Range

| Range          | Adjustable Range |      |                  |      | Approx. Deadband (Actuation Value) | *Operating Pressure (Max) | Max. Proof Pressure |
|----------------|------------------|------|------------------|------|------------------------------------|---------------------------|---------------------|
|                | Decreasing - psi |      | Increasing - psi |      |                                    |                           |                     |
|                | Min              | Max  | Min              | Max  |                                    |                           |                     |
| 0 <sup>1</sup> | 1.25             | 3    | 2                | 4    | 1.5 (MAX)                          | 20                        | 20                  |
| 1              | 2                | 7    | 3                | 10   | .5 - 4                             | 20                        | 50                  |
| 2              | 6                | 35   | 8                | 50   | 2 - 15                             | 80                        | 100                 |
| 3 <sup>2</sup> | 30               | 90   | 40               | 120  | 5 - 30                             | 130                       | 140                 |
| 4 <sup>3</sup> | 150              | 700  | 250              | 1000 | 30 - 300                           | 4000                      | 6000                |
| 5 <sup>3</sup> | 500              | 2300 | 600              | 3000 | 100 - 800                          | 4000                      | 6000                |
| 6 <sup>4</sup> | 20               | 150  | 30               | 200  | 10 - 100                           | 700                       | 2000                |
| 7 <sup>4</sup> | 80               | 400  | 150              | 500  | 20 - 150                           | 700                       | 2000                |

\* Operating pressure is defined as the maximum pressure at which the pressure switch can maintain set point accuracy.

### Process Connection

|    |   |
|----|---|
| -1 | 1/8" NPTM   |
| -2 | 1/4" NPTM   |
| -3 | 7/16-20 with O-ring seal (available only with stainless steel models) |
| -4 | G1/4 (available only with stainless steel models)                     |

### Wetted Material

|   |   |
|---|---|
| B | Buna-N  |
| N | Neoprene (not available with "F" fitting material)                        |
| V | Viton® Diaphragm (not available with "F" fitting material)                |
| D | Disigrin O-ring (available in stainless steel & piston models only)       |
| F | FDA approved - Buna-N (available in stainless steel & piston models only) |

### Fitting Material

|   |  |
|---|--|
| P | Noryl® plastic (available with pressure ranges 0 - 3 only)                           |
| F | Noryl® plastic with NSF/FDA compliance (available with pressure ranges 0 - 3 only)   |
| S | 300 series stainless steel   |
| B | Brass (only available with pressure ranges 6 and 7, and 1/8" NPT process connection) |

### Limit Switch

|                 |  |
|-----------------|--|
| -1 <sup>1</sup> | SPDT, snap-action switch, 5 Amps @ 125/250 VAC (silver contacts)       |
| -2              | SPDT, snap-action switch, 0.1 Amps @ 125/250 VAC (gold contacts)       |
| -4 <sup>1</sup> | SPST, N.O., snap-action switch, 5 Amps @ 125/250 VAC (silver contacts) |
| -5 <sup>1</sup> | SPST, N.C., snap-action switch, 5 Amps @ 125/250 VAC (silver contacts) |
| -6              | SPST, N.O., snap-action switch, 0.1 Amps @ 125/250 VAC (gold contacts) |
| -7              | SPST, N.C., snap-action switch, 0.1 Amps @ 125/250 VAC (gold contacts) |

### Electrical Connection

|                 |   |
|-----------------|---|
| 1               | .250 x .032 male spade quick disconnects (NEMA 1) (not available with brass)                                    |
| 2               | .110 x .020 male spade quick disconnects (NEMA 1) (not available with brass)                                    |
| 3               | Free leads, 18 gauge, 18" long (available only with stainless steel models - NEMA 1)                            |
| 4               | Unshielded PVC jacketed cable, 18 AWG, 18" long, (available only with stainless steel models - NEMA 4)          |
| 5 <sup>5</sup>  | DIN 43650-type connector - base only (available only with stainless steel & factory set models - NEMA 4)        |
| 6 <sup>5</sup>  | DIN 43650-type connector - with base & plug (available only with stainless steel & factory set models - NEMA 4) |
| 7 <sup>5</sup>  | SJO type cable, 3 wire, 18 AWG, 18" long (available only with stainless steel & factory set models - NEMA 4)    |
| 8 <sup>5</sup>  | Weatherpak connector, female, 2-position, two 18" free wires, for normally closed circuits                      |
| 9 <sup>5</sup>  | Weatherpak connector, female, 2-position, two 18" free wires, for normally open circuits                        |
| 10 <sup>5</sup> | Weatherpak, connector, male, 3-position, three 18" free wires, used only with SPDT limit switches               |
| 11 <sup>5</sup> | Deutsch connector, female, 3-position, three 18" free wires, used only with SPDT limit switches                 |

### NOTES:

- Only 3 Amps available @ 125/250VAC with silver contact limit switches
- Not UL/CSA certified
- Piston models - only available in stainless steel
- Available only in brass fittings (use Viton diaphragms as standard - no price adder)
- Available only with stainless steel or brass, factory set & locked models

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