

## Data Sheet

### B-Series Switches – Pressure, Differential Pressure & Hydraulic

#### FEATURES

- Adjustable setpoints 15-100% of range
- Fixed or limited adjustable deadband
- Wide selection of switch elements
- Explosion proof enclosure provides uncompromising protection
- Special designs for NACE & fire applications
- SIL 3 Capable (B and D series only)

#### TYPICAL USES

- Offshore oil rigs
- Chemical and petrochemical plants
- Pulp and papermills
- Steel mills
- Power plants
- Water and sewage-treatment plants
- Other corrosive environments



#### SPECIFICATIONS

|                            |                                                                                                                                                                 |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Setpoint:                  | Factory set or field adjustable                                                                                                                                 |
| Setpoint Repeatability:    | ±1% of full range (Additional setpoint shift of ±1% of range per 50 °F from initial setpoint set at 70 °F typical)                                              |
| Enclosure Rating:          | B4/Hydraulic: NEMA 4X, IP66<br>B7: NEMA 7/9, IP66                                                                                                               |
| Enclosure Material:        | Epoxy coated aluminum (standard)<br>Optional: 316 stainless steel (NEMA 7/9 only)                                                                               |
| Diaphragm Material:        | Buna N, Viton, Teflon, SS, Monel                                                                                                                                |
| Pressure Connection:       | 1/4 NPT Female (standard)<br>Optional: 1/2 NPT Female , 1/4 NPT Female & 1/2 NPT Male combo                                                                     |
| Electrical Output:         | SPDT or DPDT                                                                                                                                                    |
| Electrical Termination:    | 3/4 NPT Female (standard)<br>Optional: 1/2 NPT Female                                                                                                           |
| Ambient Temperature Range: | -20°F to 150°F (-19 °C to 65 °C)<br>All units calibrated at 70 °F                                                                                               |
| Process Temperature:       | 0 °F to 150 °F (Buna N or Teflon diaphragm)<br>20 °F to 300 °F (Viton diaphragm)<br>0°F to 300°F (SS or Monel diaphragm)                                        |
| Pressure Ranges:           | Pressure: Vac-3000#<br>Differential: 0-600#D<br>Hydraulic: 1000-7500#                                                                                           |
| Approvals:                 | UL E34743 (B4/D4)<br>E38812 (B7/D7)<br>CSA: 55541<br>ATEX: Sira 02ATEX1391X (B7/D7 with XCN)<br>IECEx SIR 14.0077X<br>FM: Limit Control and Steam Limit Control |



SIL 3 CAPABLE



- Highly reliable
- Designed for use in wide range of applications
- Pressure ranges from vacuum to 7500 psi



FACTORY SEALED



CLASS I DIV 1 GROUPS B, C, & D  
CLASS II DIV 1 GROUPS E, F, & G



Sira 02ATEX1391X

IECEx  
SIR 14.0077X

II 2GD  
Ex d IIC T6 Gb  
Ex tb IIIC T85°C Db  
Ta = -20 °C to +60°C

## Data Sheet

### B-Series Switches – Pressure, Differential Pressure & Hydraulic

#### PRESSURE, DIFFERENTIAL PRESSURE & HYDRAULIC RANGES

| PRESSURE/VACUUM RANGES <sup>(1)</sup> |                                                |                   | Overpressure Ratings    |           | Approximate Deadband Switch Element <sup>(2) (3) (4)</sup> Buna-N Diaphragm       |                 |                   |                 |                  |
|---------------------------------------|------------------------------------------------|-------------------|-------------------------|-----------|-----------------------------------------------------------------------------------|-----------------|-------------------|-----------------|------------------|
| Nominal Pressure                      |                                                |                   | Proof psi               | Burst psi | 20, 26, 27                                                                        | 21, 24, 31      | 50                | 22              | 32, 42           |
| <b>Vacuum</b>                         |                                                |                   |                         |           |                                                                                   |                 |                   |                 |                  |
| 30IMV                                 | -760mm Hg                                      | -100 kPa          | 250                     | 400       | 0.3-0.7                                                                           | 1.5-3.0         | 0.5-2.2           | 0.4-1.5         | 2.1-4.2          |
| <b>Compound</b>                       |                                                |                   |                         |           |                                                                                   |                 |                   |                 |                  |
| 15IWV/15IW                            | -375mm H <sub>2</sub> O/375mm H <sub>2</sub> O | -3.7 kPa/ 3.7 kPa | 20                      | 35        | 0.15-.75/0.15-.75                                                                 | 1.5-2.5/1.5-2.5 | 0.45-2.0/0.45-2.0 | 0.5-1.2/0.5-1.2 | 2.1-3.5/2.1-3.5  |
| 30IWV/30IW                            | -760mm H <sub>2</sub> O/760mm H <sub>2</sub> O | -7.5 kPa/ 7.5 kPa | 20                      | 35        | 0.30-.60/0.30-.60                                                                 | 1.5-2.5/1.5-2.5 | 0.45-2.0/0.45-2.0 | 0.5-1.5/0.5-1.5 | 2.1-3.5/ 2.1-3.5 |
| 30IMV/15#                             | -760mm Hg/ 1.0 kg/cm <sup>2</sup>              | -100 kPa/100 kPa  | 250                     | 400       | 0.5-1.0/0.3-0.7                                                                   | 2.0-3.0/0.3-0.7 | 0.75-2.5/0.5-1.0  | 0.7-1.8/0.7-1.4 | 2.8-4.2/0.7-2.1  |
| 30IMV/30#                             | -760mm Hg/1.0 kg/cm <sup>2</sup>               | -100 kPa/ 200 kPa | 250                     | 400       | 1.0-1.5/0.3-0.8                                                                   | 3.0-6.0/0.3-0.8 | 1.2-4.5/0.7-1.5   | 1.4-2.4/0.4-1.3 | 4.2-8.4/1.4-2.8  |
| 30 IMV/60#                            | -760mm Hg/4.0 kg/cm <sup>2</sup>               | -100 kPa/ 400 kPa | 250                     | 400       | 2.0-3.0/0.7-1.5                                                                   | 5.0-9.0/3.0-5.0 | 2.5-7.0/3.0-5.0   | 2.8-4.5/3.0-5.0 | 7.0-12.0/4.2-7.0 |
| <b>Pressure</b>                       |                                                |                   |                         |           |                                                                                   |                 |                   |                 |                  |
| 10IW                                  | 250mm H <sub>2</sub> O                         | 2.5 kPa           | 20                      | 35        | 0.2-0.5                                                                           | 1.0-2.0         | 0.35-1.5          | 0.4-1.0         | 1.4-2.8          |
| 30IW                                  | 750mm H <sub>2</sub> O                         | 7.5 kPa           | 20                      | 35        | 0.3-0.6                                                                           | 1.5-2.5         | 0.45-2.0          | 0.5-2.0         | 2.1-3.5          |
| 60IW                                  | 1500mm H <sub>2</sub> O                        | 15 kPa            | 20                      | 35        | 0.5-1.3                                                                           | 1.5-3.5         | 0.9-2.5           | 0.7-3.0         | 2.1-5.0          |
| 100IW                                 | 2500mm H <sub>2</sub> O                        | 25 kPa            | 20                      | 35        | 0.6-1.6                                                                           | 2.5-5.5         | 1.1-4.0           | 1.0-4.0         | 3.5-7.7          |
| 15IW                                  | 3750mm H <sub>2</sub> O                        | 37 kPa            | 20                      | 35        | 1.0-2.5                                                                           | 4.5-8.5         | 1.7-6.5           | 2.0-6.0         | 6.0-12.0         |
| 15#                                   | 1.0 kg/cm <sup>2</sup>                         | 100 kPa           | 500                     | 1500      | 0.1-0.35                                                                          | 0.5-1.5         | 0.2-1.0           | 0.4-1.0         | 0.7-2.1          |
| 30#                                   | 2.0 kg/cm <sup>2</sup>                         | 200 kPa           | 500                     | 1500      | 0.1-0.50                                                                          | 0.5-1.5         | 0.3-1.0           | 0.4-1.0         | 0.7-2.1          |
| 60#                                   | 4.0 kg/cm <sup>2</sup>                         | 400 kPa           | 500                     | 1500      | 0.3-1.0                                                                           | 1.0-3.5         | 0.7-2.5           | 0.6-2.0         | 1.4-5.0          |
| 100#                                  | 7.0 kg/cm <sup>2</sup>                         | 700 kPa           | 1000                    | 3000      | 0.5-1.7                                                                           | 1.5-5.0         | 1.1-3.5           | 1.0-4.5         | 2.1-7.0          |
| 200#                                  | 14 kg/cm <sup>2</sup>                          | 1400 kPa          | 1000                    | 3000      | 1-3                                                                               | 5-13            | 2-9               | 3.0-7.5         | 7.0-18.2         |
| 400#                                  | 28 kg/cm <sup>2</sup>                          | 2800 kPa          | 2400                    | 3000      | 4-7.5                                                                             | 5-24            | 5.5-15            | 4.0-11.0        | 7.0-33.6         |
| 600#                                  | 42 kg/cm <sup>2</sup>                          | 4200 kPa          | 2400                    | 3000      | 4-11                                                                              | 9-30            | 7-20              | 5.0-23.0        | 12.6-42          |
| 1000# <sup>(5)</sup>                  | 70 kg/cm <sup>2</sup>                          | 7000 kPa          | 12000 <sup>(5)</sup>    | 18000     | 7-30                                                                              | 30-110          | 18-70             | 15-80           | 42-154           |
| 3000#                                 | 210 kg/cm <sup>2</sup>                         | 21000 kPa         | 12000                   | 18000     | 15-60                                                                             | 80-235          | 37-160            | 30.0-230        | 112-329          |
| <b>DIFFERENTIAL PRESSURE RANGES</b>   |                                                |                   | <b>Pressure Ratings</b> |           | <b>Approximate Deadband Switch Element<sup>(2) (3) (4)</sup> Buna-N Diaphragm</b> |                 |                   |                 |                  |
| Nominal Pressure                      |                                                |                   | Static Working Pressure | Proof psi | 20, 26, 27                                                                        | 21, 24, 31      | 50                | 22              | 32, 42           |
| 30IWD                                 | 750mm H <sub>2</sub> O                         | 7.5 kPa           | 5.4                     | 21.6      | 0.3-0.6                                                                           | 1.5-2.5         | 0.45-2.0          | 0.5-2.0         | 2.1-3.5          |
| 60IWD                                 | 1500mm H <sub>2</sub> O                        | 15 kPa            | 5.4                     | 21.6      | 0.5-1.3                                                                           | 1.5-3.5         | 0.9-2.5           | 0.7-3.0         | 2.1-5.0          |
| 100IWD                                | 2500mm H <sub>2</sub> O                        | 25 kPa            | 5.4                     | 21.6      | 0.6-1.6                                                                           | 2.5-5.5         | 1.1-4.0           | 1.0-4.0         | 3.5-7.7          |
| 150IWD                                | 3750mm H <sub>2</sub> O                        | 37 kPa            | 5.4                     | 21.6      | 1.0-2.5                                                                           | 4.5-8.5         | 1.8-6.5           | 2.0-6.0         | 6.3-12.0         |
| 15#D                                  | 1.0 kg/cm <sup>2</sup>                         | 100 kPa           | 500                     | 2000      | 0.5-1.0                                                                           | 2.0-5.0         | 0.7-3.5           | 0.7-1.4         | 2.8-7.0          |
| 30#D                                  | 2.0 kg/cm <sup>2</sup>                         | 200 kPa           | 500                     | 2000      | 1.0-2.0                                                                           | 2.0-5.0         | 1.5-3.5           | 1.4-2.8         | 2.8-7.0          |
| 60#D                                  | 4.0 kg/cm <sup>2</sup>                         | 400 kPa           | 500                     | 2000      | 2.0-4.0                                                                           | 3.0-6.0         | 3.0-4.5           | 2.8-5.6         | 4.2-8.5          |
| 100#D                                 | 7.0 kg/cm <sup>2</sup>                         | 700 kPa           | 1000                    | 4000      | 4.0-10.0                                                                          | 11.0-20.0       | 7.0-15.0          | 6.0-14.0        | 16.0-28.0        |
| 200#D                                 | 14.0 kg/cm <sup>2</sup>                        | 1400 kPa          | 1000                    | 4000      | 5.0-15.0                                                                          | 12.0-40.0       | 10.0-26.0         | 7.0-21.0        | 17.0-56.0        |
| 400#D                                 | 28.0 kg/cm <sup>2</sup>                        | 2800 kPa          | 1000                    | 8000      | 10.0-20.0                                                                         | 20.0-60.0       | 15.0-40.0         | 14.0-28.0       | 28.0-84.0        |
| 600#D                                 | 42.0 kg/cm <sup>2</sup>                        | 4200 kPa          | 1000                    | 8000      | 20.0-40.0                                                                         | 80.0-150.0      | 30.0-115.0        | 30.0-56.0       | 12.0-210.0       |

#### NOTES:

- Switches may generally be set between 15% and 100% of nominal range on increasing pressure. Consult factory for applications where setpoints must be lower.
- All deadbands are given in English units as shown in the nominal range column. Deadbands shown are for switches with Buna N diaphragm.

Approximate deadbands for optional diaphragms:

Viton: Multiply Buna N value by 1.4  
Teflon: Multiply Buna N value by 1.2  
Stainless Steel: Multiply Buna N value by 1.7  
Monel: Multiply Buna N value by 1.7

3. Deadbands given are for zero static working pressure.

4. For approximate deadbands for dual switch elements, multiply the single switch element by 1.6.

5. Proof pressure is 4000 psi with stainless steel and monel welded diaphragms.

## Data Sheet

### B-Series Switches – Pressure, Differential Pressure

#### ORDERING CODE

Example: **B4 20 B XPK 600#**

##### Enclosure

- B4** - Pressure switch, Type 400, watertight enclosure meets NEMA 3, 4, 4X, 13 and IP66 requirements.
- B7** - Pressure switch, Type 700, explosion-proof enclosure meets Div. 1 & 2, NEMA 7, 9 and IP66 requirements. Standard housing epoxy coated aluminum. Use variation code XYW for 316SS housing.
- D4** - Differential pressure switch, Type 400, water-tight enclosure meets NEMA 3, 4, 4X, 13 and IP66 requirements.
- D7** - Differential pressure switch, Type 700, explosion-proof enclosure meets Div. 1 & 2, NEMA 7, 9 and IP66 requirements. Standard housing epoxy coated aluminum. Use variation code XYW for 316SS housing.

##### Switch Element Selection - UL/CSA Listed SPDT

- 20** - Narrow deadband ac, 15A - 125/250 Vac. Estimated dc rating, 0.4A, 120 Vdc (not UL listed).
- 21** - Ammonia service, 5A - 125/250 Vac
- 22** - Hermetically sealed switch, narrow deadband, 5A - 125/250 Vac. Estimated dc. rating, 2.5A, 28 Vdc (not UL listed).
- 23** - Heavy duty ac, 22A - 125/250 Vac
- 24** - General purpose, 15A - 125/250/480 Vac, ½A - 125 Vdc, ¼A - 250 Vdc; 6A, 30 Vdc. (Standard switch)
- 25** - Heavy duty dc, 10A - 125 Vac or dc, ½ HP - 125 Vac or dc. Not available with psid ranges.
- 26** - Sealed environment proof, 15A - 125/250 Vac. Estimated dc rating, 0.4A, 120 Vdc (not UL listed).
- 27** - High temperature 300°F, 15A - 125/250 Vac
- 28** - Manual reset trip on, increasing 15A - 125/250 Vac. Not available with type 700 enclosure.
- 29** - Manual reset trip on decreasing, 15A - 125/250 Vac. Not available with type 700 enclosure.
- 31** - Low level (gold) contacts, 1A - 125 Vac
- 32** - Hermetically sealed switch, general purpose, 11A - 125/250 Vac, 5A - 30 Vdc
- 42** - Hermetically sealed switch, gold contacts, 1A - 125 Vac
- 50** - Variable deadband, 15A - 125/250 Vac

##### Switch Element Selection - UL/CSA Listed Dual (2 SPDT)

- 61** - Dual narrow deadband, 15A - 125/250 Vac. Estimated dc rating, 0.4A, 120 Vdc (not UL listed).
- 62** - Dual sealed environment proof, 15A - 125/250 Vac. Estimated dc rating, 0.4A, 120 Vdc (not UL listed).
- 63** - Dual high temp. 300°F, 15A - 125/250 Vac
- 64** - Dual general purpose, 15A - 125/250/480 Vac, ½A - 125 Vdc, ¼A - 250 Vdc
- 65** - Dual ammonia service, 5A - 125/250 Vac
- 67** - Dual hermetically sealed switch, narrow deadband, 5A - 125/250 Vac. Wires cannot be terminated inside B400 switch enclosure. Estimated dc. rating, 2.5A, 28 Vdc (not UL listed).
- 68** - Dual hermetically sealed switch, general purpose, 11A - 125/250 Vac 5A, 30 Vdc. Wires cannot be terminated inside B400 switch enclosure.
- 70** - Dual low level gold contacts, 1A - 125 Vac
- 71** - Dual hermetically sealed switch, gold contacts, 1A - 125 Vac. Wires cannot be terminated inside B400 switch enclosure.

| Actuator Seal | Process Temp.             | Range                  |           |            |            | Ambient operating temperature limits -20 to 150 °F, all styles, setpoint shift of ±1% of range per 50 °F temperature change is normal. Switches are calibrated at 70 °F reference |
|---------------|---------------------------|------------------------|-----------|------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material      | Limits °F <sup>(10)</sup> | Vac. °H <sub>2</sub> O | 0-600 psi | 0-1000 psi | 0-3000 psi |                                                                                                                                                                                   |
| B - Buna N    | 0 to 150                  | •                      | •         | •          | •          |                                                                                                                                                                                   |
| V - Viton     | 20 to 300                 | •                      | •         | •          | •          |                                                                                                                                                                                   |
| T - Teflon    | 0 to 150                  | •                      | •         | •          | •          |                                                                                                                                                                                   |
| S - 316L      | 0 to 300                  |                        | •         | •          |            | Available on pressure only.                                                                                                                                                       |
| P - Monel     | 0 to 300                  |                        | •         | •          |            | Available on pressure only.                                                                                                                                                       |

**Options** - Use table from page 5

**Range** - Select from table page 2

## Data Sheet

### B-Series Switches – Hydraulic\*

#### ORDERING CODE

 Example: **H4 24 V XPK 3000#**

##### Enclosure

**H4** - Hydraulic pressure switch, Type 400, watertight enclosure meets NEMA 3, 4, 4X, 13 and IP66 requirements.

##### Switch Element Selection

- 20** - Narrow deadband ac, 15A - 125/250 Vac. Estimated dc rating, 0.4A, 120 Vdc (not UL listed)
- 22** - Hermetically sealed switch, narrow deadband, 5A - 125/250 Vac. Estimated dc rating, 2.5A, 28 Vdc (not UL listed).
- 23** - Heavy duty ac, 22A - 125/250 Vac
- 24** - General purpose, 15A - 125/250/480 Vac, ½A - 125 Vdc, ¼A - 250 Vdc; 6A, 30 Vdc. Standard switch.
- 25** - Heavy duty dc, 10A - 125 Vac or dc, 1/8 HP - 125 Vac or dc
- 26** - Sealed environment proof, 15A - 125/250 Vac. Estimated dc rating, 0.4A, 120 Vdc (not UL listed)
- 27** - High temperature 300°F, 15A - 125/250 Vac
- 28** - Manual reset trip on increasing, 15A - 125/250
- 29** - Manual reset trip on decreasing, 15A - 125/250 Vac
- 32** - Hermetically sealed switch, general purpose, 11A - 125/250 Vac, 5A - 30 Vdc

##### Switch Element Selection

- 61** - Dual narrow deadband, 15A - 125/250 Vac. Estimated dc rating, 0.4A, 120 Vdc (not UL listed)
- 62** - Dual sealed environment proof, 15A - 125/250 Vac. Estimated dc rating, 0.4A, 120 Vdc (not UL listed)
- 63** - Dual high temp. 300°F, 15A - 125/250 Vac
- 64** - Dual general purpose, 15A - 125/250/480 Vac, ½A - 125 Vdc, ¼A - 250 Vdc
- 65** - Dual ammonia service, 5A - 125/250 Vac
- 70** - Dual low level gold contacts, 1A - 125 Vac

##### Actuator Seal

| Material         | Process Temp. Limits°F | Ambient operating temperature limits -20 to 150 °F; all styles, setpoint shift of ±1% of range per 50 °F temperature change is normal. Switches are calibrated at 70 ° F reference. |
|------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>V</b> - Viton | 20 to 300              | Viton O-ring, stainless steel pressure connection                                                                                                                                   |

**Options** Use table from page 6

##### Range

| Range psi | Adjustable Setpoint Limits psi | Proof Pressure psi |
|-----------|--------------------------------|--------------------|
| 1000      | 150 – 1000                     | 12,000             |
| 2000      | 300 – 2000                     | 12,000             |
| 3000      | 450 – 3000                     | 12,000             |
| 5000      | 750 – 5000                     | 10,000             |
| 7500      | 1125 – 7500                    | 10,000             |

\*Not all B-series hydraulic version (H4) switches are CE compliant. Consult factory for further information



## Data Sheet

### B-Series Switches – Pressure, Differential Pressure & Hydraulic

#### OPTIONAL FEATURES AND ACCESSORIES

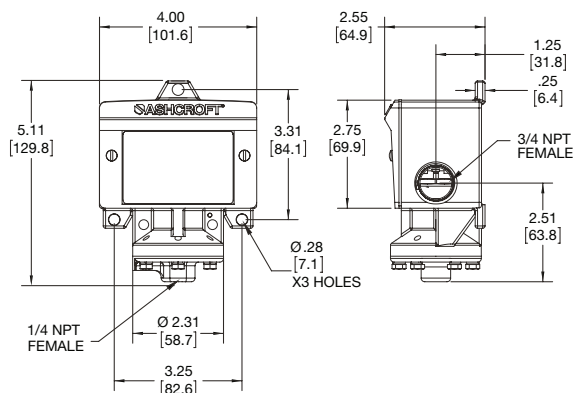
| B-SERIES SWITCH OPTIONS  |                                                                        |          |                        |                       |                        |   |
|--------------------------|------------------------------------------------------------------------|----------|------------------------|-----------------------|------------------------|---|
| Applicable Switch Series |                                                                        |          |                        |                       |                        |   |
| Code                     | Description                                                            | Pressure |                        | Differential Pressure |                        | H |
|                          |                                                                        | (psi)    | (in. H <sub>2</sub> O) | (psi)                 | (in. H <sub>2</sub> O) |   |
| XBP                      | Wall Mounting Bracket in. H <sub>2</sub> O                             |          | •                      |                       | •                      |   |
| XCH                      | Chained Cover                                                          | •        | •                      | •                     | •                      | • |
| XC8                      | CSA Approval                                                           | •        | •                      | •                     | •                      |   |
| XCN                      | ATEX Directive 94/9/EC/IECEx Rating                                    | •        | •                      | •                     | •                      |   |
| XD2                      | Dual Seal Rating (700 Series only)                                     | •        |                        |                       | •                      |   |
| XFM                      | FM Approval – Single Element                                           | •        | •                      | •                     | •                      |   |
|                          | FM Approval – Dual Element                                             | •        | •                      | •                     | •                      |   |
| XFP                      | Fungus Proofing                                                        | •        | •                      | •                     | •                      | • |
| XFS                      | Factory Adjusted Setpoint                                              | •        | •                      | •                     | •                      | • |
| XG3                      | Belleville Actuator                                                    | •        |                        |                       |                        |   |
| XG5                      | UL Limit Control to 150" H <sub>2</sub> O                              |          |                        |                       | •                      |   |
| XG6                      | UL Limit Control to 600 psi                                            | •        |                        |                       |                        |   |
| XG7                      | Secondary Chamber with Vent                                            | •        |                        |                       |                        |   |
| XG8                      | Steam Limit Control to 300 psi                                         | •        |                        |                       |                        |   |
| XG9                      | Fire Safe Welded Actuator                                              | •        |                        |                       |                        |   |
| XHS                      | High Static Differential Pressure                                      |          |                        | •                     |                        |   |
| XHX                      | High Pressure, 40 psi, (static) d/p only                               |          | •                      |                       | •                      |   |
|                          | 160 psi (proof) d/p only                                               |          | •                      |                       | •                      |   |
|                          | 100 psi (proof) pressure only (" H <sub>2</sub> O)                     |          | •                      |                       | •                      |   |
| XJK                      | Left Conduit Connection                                                | •        | •                      | •                     | •                      | • |
| XJL                      | ¾" to ½" Reducing Bushing                                              | •        | •                      | •                     | •                      | • |
| XJM                      | Metric Electrical Conduit Conn. M20 x 1.5                              | •        | •                      | •                     | •                      | • |
| XK3                      | Terminal Block (700 Series only)                                       | •        | •                      | •                     | •                      |   |
| XLE                      | 6 foot Leads on the Micro Switch                                       | •        | •                      | •                     | •                      | • |
| XNH                      | Tagging Stainless Steel                                                | •        | •                      | •                     | •                      | • |
| XNN                      | Paper Tag                                                              | •        | •                      | •                     | •                      | • |
| XPK                      | Pilot Light(s) Top Mounted                                             | •        | •                      | •                     | •                      | • |
| XPM                      | ¾" Sealed Conduit Connection w/16" Lead Wires                          | •        | •                      | •                     | •                      | • |
| XTA                      | 316 Stainless Steel Pressure Connection for in. H <sub>2</sub> O Range |          | •                      |                       | •                      |   |
| XTM                      | 2" Pipe Mounting Bracket                                               | •        | •                      | •                     | •                      |   |
| XUD                      | 316 Stainless Steel Pressure Conn.                                     |          |                        | •                     |                        |   |
| X06                      | Pressure Connection:                                                   |          |                        |                       |                        |   |
|                          | ½ NPT Male, ¼ NPT Female                                               | •        | •                      | •                     | •                      |   |
|                          | 316 Stainless Steel (Combination)                                      |          |                        |                       |                        |   |
| X07                      | ½ NPTF Press. Conn., 316 SS                                            | •        | •                      | •                     | •                      |   |
| X6B                      | Cleaned for Oxygen Service                                             | •        |                        | •                     |                        |   |
| X9F                      | Inches of Water Housing for Outdoor Use                                |          | •                      |                       |                        |   |
| XYW                      | 316SS Housing                                                          | •        | •                      | •                     | •                      |   |
| XMD                      | Metric Range on Label                                                  | •        | •                      | •                     | •                      | • |

## Data Sheet

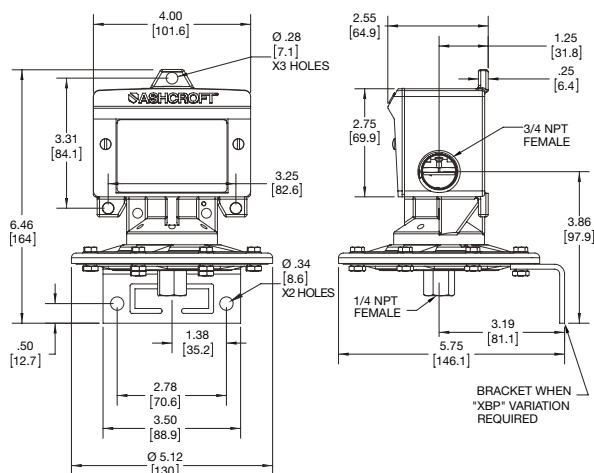
### B-Series Switches – Pressure, Differential Pressure & Hydraulic

#### B 400 DIMENSIONS

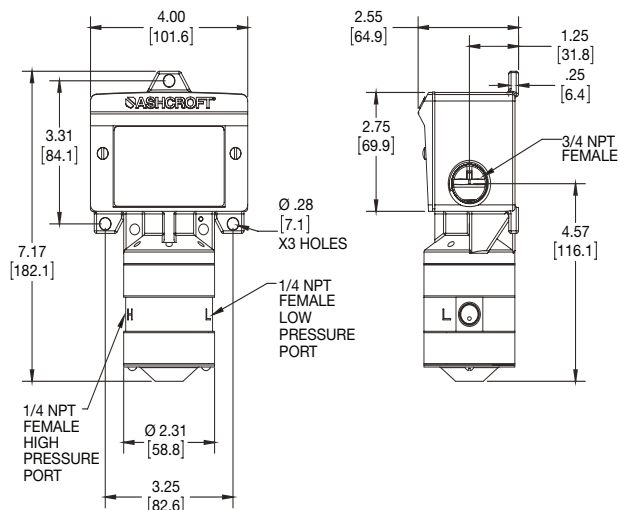
##### Pressure switch – psi ranges



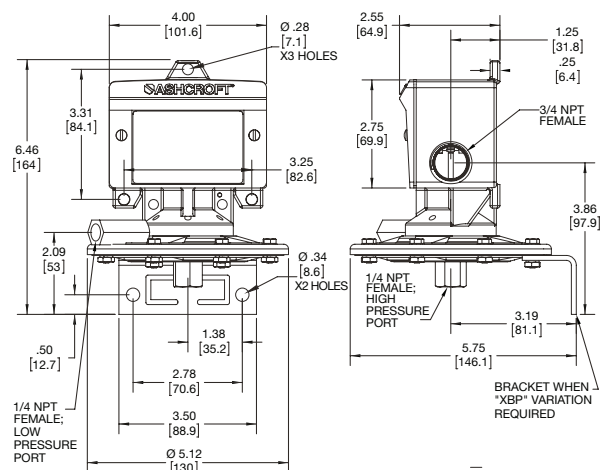
##### Pressure switch – inches of water ranges



##### Differential pressure switch – psi differential ranges

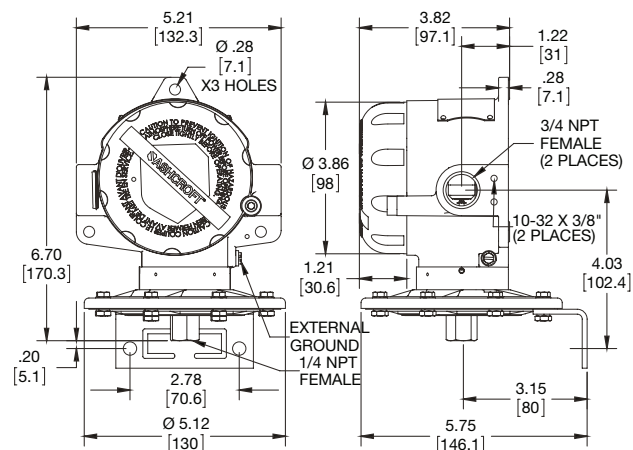
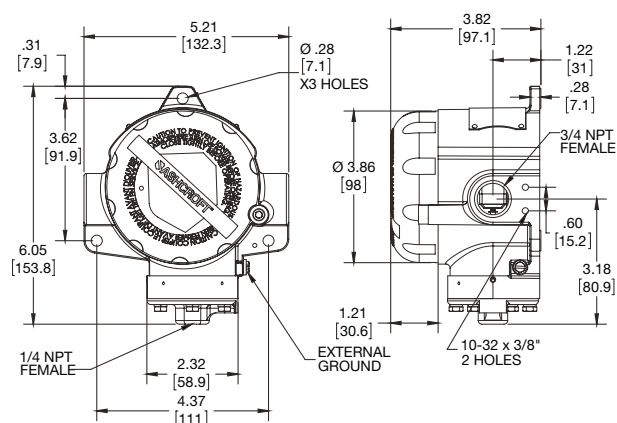


##### Differential pressure switch – inches of water ranges

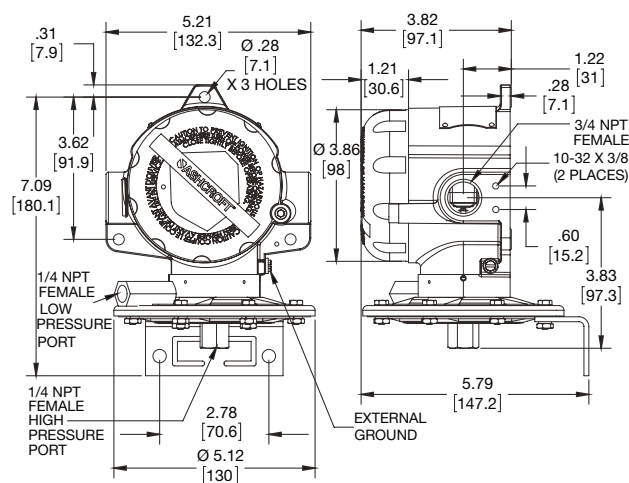
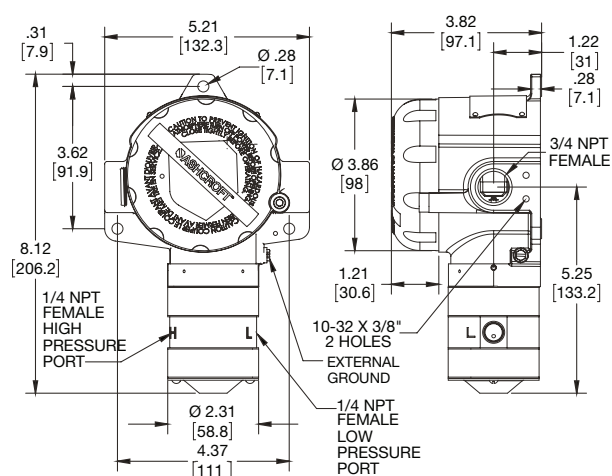


## B 700 DIMENSIONS

### Pressure switch – inches of water ranges



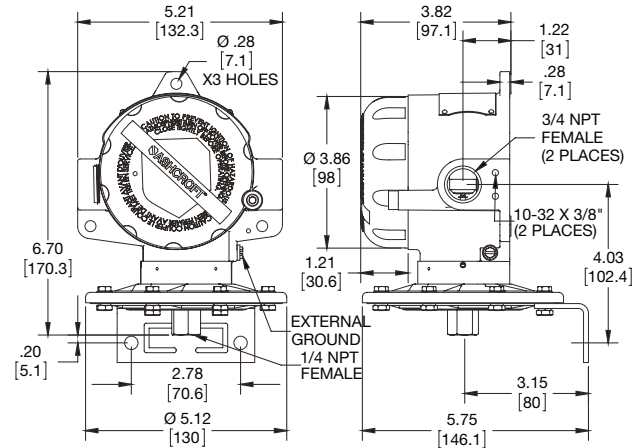
### Differential pressure switch – inches of water ranges



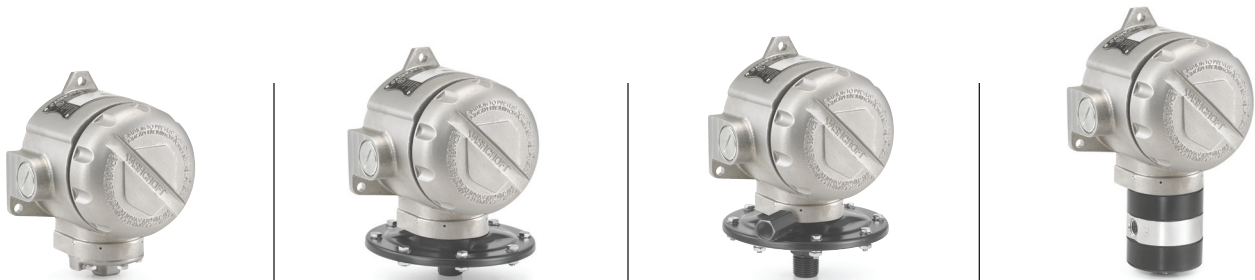
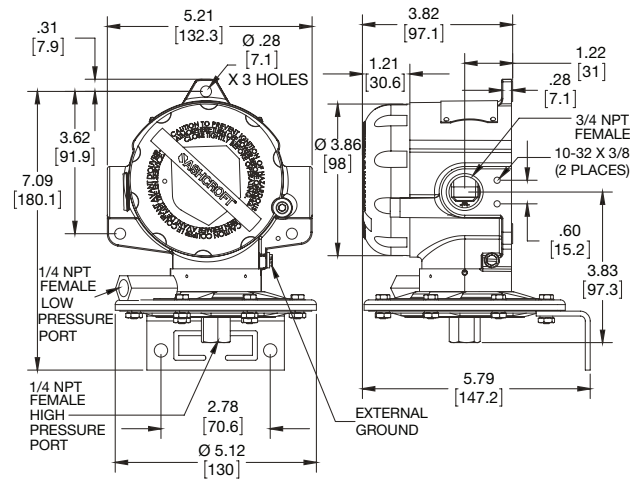
7

## B 700 DIMENSIONS

## Pressure switch – inches of water ranges



### Differential pressure switch – inches of water ranges



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## **B-Series Switches – Pressure, Differential Pressure & Hydraulic**

Ashcroft Inc. supplies highly reliable Ashcroft® switches and controls for industrial and process applications. We begin with rock-solid designs, matching the most appropriate technology with the safety and reliability requirements of the applications. The materials of construction are specified to Ashcroft's exacting standards, and product is built to last in the toughest applications. Our modern, responsive manufacturing facility is supported by an extensive network of stocking distributors and factory sales offices located in virtually every part of the world. Special application assistance is always just a telephone call away.

The Ashcroft B-Series switch line is designed to satisfy most switch requirements. Materials of construction have been selected for long life. A wide variety of precision switch elements are available to meet every application requirement, including hermetically sealed contacts for added reliability and safety. The actuators we use have been proven in more than 20 years of service in the world's plants and mills. Special designs are available for fire safety, NACE, limit control and other more stringent requirements. Simplicity and ease of use are stressed to improve reliability of the installation.

Applications include: pumps, compressors, washers, filters, degreasers, evaporators, recovery systems, food processing, ground support equipment, reverse osmosis systems, heat exchangers, hydraulic systems, lubrication systems, marine equipment, textile machinery, heating and air conditioning equipment.

### **Pressure & Differential Pressure Switches**

B-Series pressure, differential pressure and vacuum switches use two different actuators depending on setpoint requirements. For setpoints between 2 and 3000 psi, the simple, rugged diaphragm-sealed piston actuator is used. This design features high reliability and choice of actuator seal materials for virtually every application. An optional welded design is also available for setpoints up to 1000 psi for maximum reliability. This design is available in 316 SS or Monel. Differential pressure models use a unique, dual diaphragm-sealed piston design that features very high static operating pressures and small size.

For setpoints between 4.5 and 150 inches of H<sub>2</sub>O, a large diaphragm is used for increased sensitivity in both pressure and differential pressure designs with good choice of materials of construction.

All standard models feature  $\pm 1$  percent of range setpoint repeatability and a minimum of 400 percent of range proof pressures.

These standard designs perform well in applications where shock and vibration could be a problem and may be used in conjunction with Ashcroft diaphragm seals in extreme services such as slurries or abrasive process fluids.