

D1X, D2X Pressure Switch

Explosion Proof Diaphragm
D1X, D2X Series

- ✦ Hermetically Sealed
- ✦ Explosion Proof Housing
- ✦ Tamper Proof Setpoint Adjustment
- ✦ Ideal for Pressure or Vacuum



Barksdale's D1X and D2X Explosion Proof Diaphragm Pressure Switches offer high accuracy and reliability, providing an ideal solution for your hazardous locations pressure control requirements. With vacuum and positive pressure ranges to 150 psi, NEMA 4,7 & 9 enclosures, a covered terminal strip and tamper-proof external adjustment, **Barksdale D1X and D2X Explosion Proof**

Diaphragm Pressure Switches meet your needs in a wide variety of applications. These switches are available in single setting or dual control. An internal set screw allows for easy internal adjustment of setpoints. For applications requiring a highly accurate switch in a durable package, **Barksdale's Explosion Proof Diaphragm Pressure Switches** are the ideal choice.

D1X, D2X Pressure Switch

With Barksdale - Pressure's No Problem

As a recognized leader in the manufacture of pressure product solutions, Barksdale pressure switches meet the demanding needs of our customers. From 29" Hg to 18,000 psi, Barksdale has pressure switches for a variety of applications – from transformers to natural gas compressors to beverage dispensers – and more!

Barksdale's Diaphragm Pressure Switches provide an economical solution for your pressure sensing needs. Diaphragm switches accurately control pressures from 30 inches of mercury vacuum to 150 psi positive pressure, and can be factory pre-set upon request. Setpoint adjustment is easily accomplished by turning the adjustment screws, which are protected by a tamper-resistant cover on housed models. A variety of available factory options allows the diaphragm switches to be configured to the exact needs of your application.

Diaphragm Pressure Switch Applications

With its economical design and high repeatability, Barksdale's **Diaphragm Pressure Switches** provide an accurate and reliable solution for pressures up to 150 psi, making them ideal for use in:

- Pump & Compressor Monitoring
- Air proving in HVAC Systems
- Engine Monitoring
- Machine Tools
- Hydraulic Power Units



Need Something Special?

If you have special product requirements, we can help. Barksdale specializes in custom design solutions to meet your needs. Our reputation is built on creating custom products for customers committed to getting exactly what they need. We have design engineers and technical specialists who are experts in solving your unique pressure problems. Our technology and resources are at your disposal.

Need More Information?

Call us. We are only a phone call away.
Toll-Free: 1-800-835-1060.

D1X, D2X Pressure Switch

Electrical Characteristics All models incorporate Underwriters Laboratories, Inc. and CSA Listed single pole double throw snap-action switching elements.

Performance Characteristics

Accuracy ± 0.5% of the adjustable range

Switch Type SPDT Snap Action; single or dual circuit

Rating 10 Amps @ 125/250 VAC; .5 Amps @ 24 VDC (Class A or H limit switch). Consult sales drawing for ratings of optional limit switches.

Physical

Shipping Weight 7.0 lbs. approximate

Wetted Parts

Process Fitting 303 Stainless Steel

Diaphragms 17-7 PH Stainless Steel

Enclosure Die-Cast Aluminum, anodized and painted

Ratings NEMA 4, 7, 9

Pressure Connection 1/4" NPT Female

Electrical Connection Screw terminals on covered terminal strip via 1/2" NPT (D1X) and 3/4" NPT (D2X) conduit fittings

Approvals

UL (standard) All models are UL approved for use in hazardous locations Class I, Groups B, C, & D; Class II, Groups E, F, & G. UL File No. E37043

CSA (standard) All models are CSA approved for use in hazardous locations Class I, Groups B, C, & D; Class II, Groups E, F, & G. CSA File No. LR22354

ATEX (optional) Ex models are ATEX certified per ISSeP 03 ATEX 122X & marked as follows: CE 0081 II 2 GD EEx d IITC, T6 T85°C

Environmental

Temperature Range

Operating -65° to +165°F (-7° to +74°C)

Storage -40° to +200°F (40° to 200°C)

Adjustment Instructions

Pressure Turn adjustment screw counterclockwise to raise actuation point.

Vacuum Turn adjustment screw clockwise to increase setpoint (higher vacuum)

| WIRING CODE | | | | |
|-----------------|------------|--------|------------|--------|
| Lead | Circuit #1 | | Circuit #2 | |
| | Pressure | Vacuum | Pressure | Vacuum |
| Normally Closed | Blue | Red | Orange | Yellow |
| Common | Purple | Purple | Brown | Brown |
| Normally Open | Red | Blue | Yellow | Orange |

Contact Factory for These Options

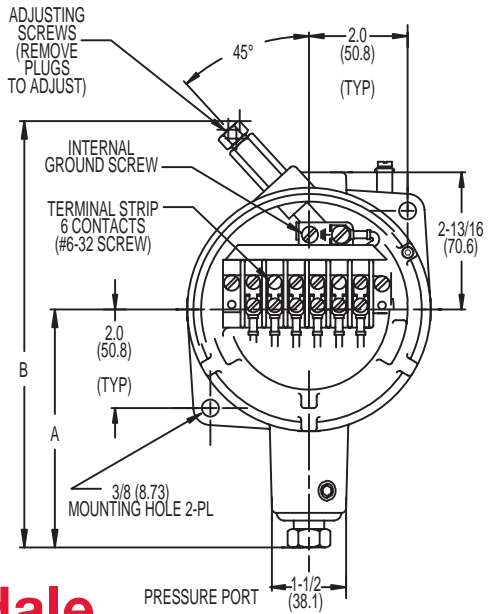
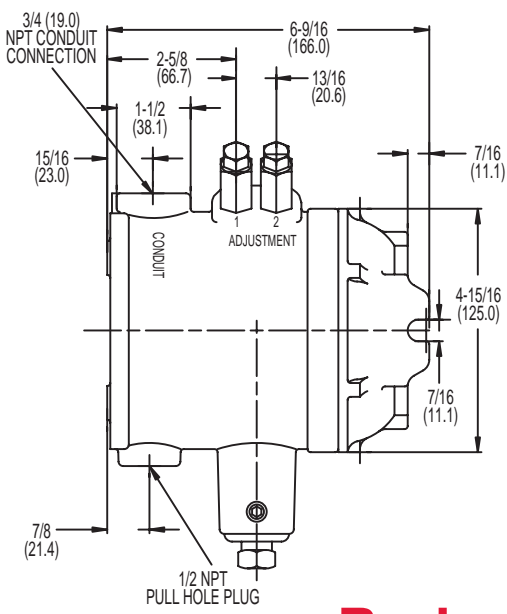
1/2" NPT female pressure connection

Hermetically sealed switch elements

NEMA 4X, 7, 9 enclosure

Cleaned for Oxygen Service

Factory pre-set



D1X, D2X Pressure Switch

Explosion Proof Diaphragm

D1X, D2X Series

| | | |
|---------------------|-----|---|
| Basic Configuration | H | Hermetically sealed limit switch (optional); Class 1 Division 2. Requires Class AA, CC, or HH limit switch. |
| | D1X | Single setpoint housed |
| Limit Switch | D2X | Dual setpoint housed |
| | -A | 10 Amps @ 125/250 VAC; 3 Amps @ 480 VAC; .5 Amp @ 24 VDC (standard for 3SS, 80SS, and 150SS ranges) |
| | -B | 10 Amps @ 125/250/480 VAC; 2 Amps @ 600 VAC; 15 Amps @ 12 VDC (consult sales drawing for deadband values) |
| | -H | 10 Amps @ 125/250 VAC; 3 Amps @ 480 VAC; .5 Amp @ 24 VDC (standard for 2SS and 18SS ranges) |
| | -J | 10 Amps @ 125/250 VAC; 3 Amps @ 480 VAC; 0.5 Amps @ 24 VDC (consult sales drawing for deadband values) |
| | -M | 10 Amps @ 125/250 VAC; 3 Amps @ 480 VAC; 15 Amps @ 12 VDC; 2 Amps @ 24 VDC (consult sales drawing for deadband values) |
| | -GH | 1 Amp @ 125 VAC; 1 Amp @ 24 VDC Gold Contact (consult sales drawing for deadband values) |
| | -AA | Hermetically sealed; 4 Amps @ 125/250 VAC* (consult sales drawing for deadband values) |
| | -CC | Hermetically sealed; 10 Amps @ 125/250 VAC* (consult sales drawing for deadband values) |
| | -GH | Hermetically sealed; 1 Amp @ 125 VAC gold contact* (consult sales drawing for deadband values) - Not available on vacuum models |
| | -HH | Hermetically sealed; 5 Amps @ 125/250 VAC* (consult sales drawing for deadband values) |

PRESSURE SWITCHES

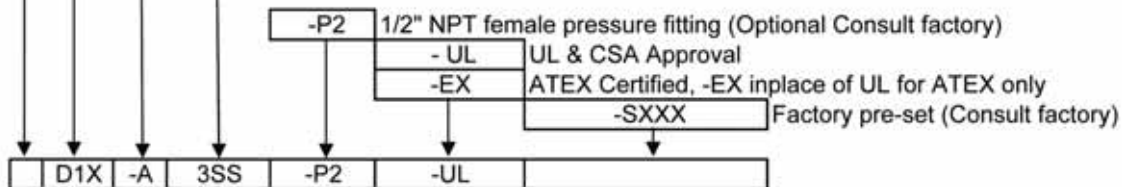
Adjustable Range

| | Adjustable Range | | | | Approx. Deadband (Actuation Value) psi-(bar) | Proof Pressure psi (bar) |
|-------|----------------------|-------------|----------------------|------------|---|-----------------------------|
| | Decreasing-psi (bar) | | Increasing-psi (bar) | | | |
| | Min | Max | Min | Max | | |
| 3SS | .03 (0) | 2.85 (.2) | .18 (.01) | 3 (.2) | .07 - .15 (0 - .01) | 10 (.7) |
| 18SS | .4 (.03) | 17.74 (1.2) | .66 (.04) | 18 (1.2) | .12 - .26 (.01 - .02) | 60 (4.1) |
| 80SS | .5 (.03) | 76.6 (5.2) | 3.9 (.3) | 80 (5.4) | 1.6 - 3.4 (.1 - .2) | 160 (10.9) |
| 150SS | 1.5 (.1) | 144.0 (9.8) | 7.5 (.5) | 150 (10.2) | 2.3 - 6.0 (.2 - .4) | 300 (20.4) |

VACUUM SWITCHES

| | Adjustable Range | | | | Approx. Deadband (Actuation Value) In. Hg | Proof Pressure In. Hg |
|------|-------------------|------|-------------------|-----|--|--------------------------|
| | Decreasing-In. Hg | | Increasing-In. Hg | | | |
| | Min | Max | Min | Max | | |
| 3SS | 0.06 | 5.72 | 0.34 | 6 | .14 - .28 | 6 |
| 18SS | 0.8 | 29.2 | 1.6 | 30 | .4 - .8 | 30 |

Options



Example: D1X-A3SS-P2-UL UL & CSA Approved

Example: D1X-A3SS-P2-EX ATEX Certified

*Not available on vacuum models.

Barksdale
CONTROL PRODUCTS

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