DUAL SEAL RATING FOR ASHCROFT® B700, D700 & P-SERIES PRESSURE SWITCHES, OPTION XD2

The Ashcroft® dual diaphragm pressure actuator is designed to meet the requirements of ANSI/ISA-12.27.01-2003 for process sealing between electrical systems and flammable or combustible process fluids. The testing for the Dual Seal Rating was done by CSA and is part of CSA File LR 55541 for Ashcroft B700, D700 and P-series pressure switches. Our dual seal design is based on our limit control redundant diaphragm designs (options XG5, XG6 and XG7) that have been used on boilers and burners for more than 20 years.

OPERATION

The basic Ashcroft pressure switch actuator consists of a sensing piston of a specific area exposed to process pressure. The pressure on this area creates a force, which is opposed by a spring until the set point is reached, at which point the switch actuates. Various area piston and springs are used to get the different ranges we offer.

The dual diaphragm design consists of a primary or sensing diaphragm as described above and a secondary or redundant seal diaphragm. In the unlikely event that the primary diaphragm ruptures, the secondary diaphragm prevents process fluid from entering the switch enclosure. A vent is provided to annunciate a primary seal failure. Caution: The vent must not be used or blocked; gas leakage may not be visible.
The XD2 option is available for B700, PPA, PPD and PPS switches in the ranges of 15 psi to 600 psi.

For inches of water ranges the D700, PDA, PDD and PDS switches are used as pressure switches not differential switches. The H connection is used as the process input and the L connection as the vent.
**HOW TO ORDER**

**Typical Code**

**B7**

- **Enclosure**: 700 series, NEMA 7/9, Explosion Proof
- **Switch Element**: All standard B-series
- **Actuator**: B, V, T S, P
- **Optional Features**: C8 CSA Approval, D2 Dual Seal, Other options
- **Ranges**: 15#, 30#, 60#
- **Typical Code**: 24 S XC8D2 60 psi

**Typical Code**

**D7**

- **Enclosure**: 700 series, NEMA 7/9, Explosion Proof
- **Switch Element**: All standard D-series
- **Actuator**: B, V, T
- **Optional Features**: C8 CSA Approval, D2 Dual Seal, Other options
- **Ranges**: 30 IW, 60 IW, 100 IW
- **Typical Code**: 24 B XC8D2 30 IW

**Typical Code**

**PP**

- **Enclosure**: NEMA 7/9 All standard B, V, T
- **Switch Element**: 06, 07, 25
- **Actuator**: B, V, T S, P
- **Optional Features**: C8 CSA Approval, D2 Dual Seal, Other options
- **Ranges**: 15#, 30#, 60#
- **Typical Code**: D N7 GG B 25 XC8D2 30 psi

**Typical Code**

**PD**

- **Enclosure**: NEMA 7/9 All standard B, V, T
- **Switch Element**: 06, 07, 25
- **Actuator**: B, V, T S, P
- **Optional Features**: C8 CSA Approval, D2 Dual Seal, Other options
- **Ranges**: 30 IW, 60 IW, 100 IW
- **Typical Code**: D N7 GG B 25 XC8D2 30 psi