

DIGITAL EPIC POSITION TRANSMITTERS

EXPLOSIONPROOF/FLAMEPROOF - ATEX/IEC/NEC

Position Transmitters that provide discrete position control and precision, non-contact position feedback with digital communication via HART® protocol for linear or rotary control valves in a simple, integrated package.



FEATURES

- Microprocessor based technology allows digital communication via HART® protocol.
- Model D410 features remote and local partial stroke test (PST) and emergency shut down (ESD) initiated remotely via HART® signal or locally at the device for safety system applications.
- 'Non-intrusive' magnetic calibration input sensors on outside of the D410 enclosure allow calibration without removing the cover, maintaining safety in a potentially explosive environment.
- Valve position measurement via a non-contact magnetic sensor eliminates mechanical drive arms or linkages increasing reliability in high cycle applications or where vibration is present.
- Highly visible position indicator.
- Site glass on Model D410 gives view to the product's LCD display.
- Extra conduit entries and internal terminal points are provided for mounting and backwiring of a solenoid valve.
- Low copper content aluminum enclosure with polyurethane enamel coating assures both strength and corrosion resistance.

TECHNICAL DATA

Agency approvals

Area classification (ATEX/IEC)
D410/D420

Ex d IIB+H2
AEx d IIB+H2
Ex nA IIC
AEx nA IIC

Area classification (NEC 500)
D410/D420

Class I, Division 1, Groups B,C & D
Class I, Division 2, Groups A,B,C & D
Class II, Division 1, Groups E,F & G
Class III

Enclosure standards (IEC)

IP66

Enclosure standards (ANSI/NEMA 250)

Type 4X

Enclosure

Aluminum with powder coat finish

GENERAL APPLICATION

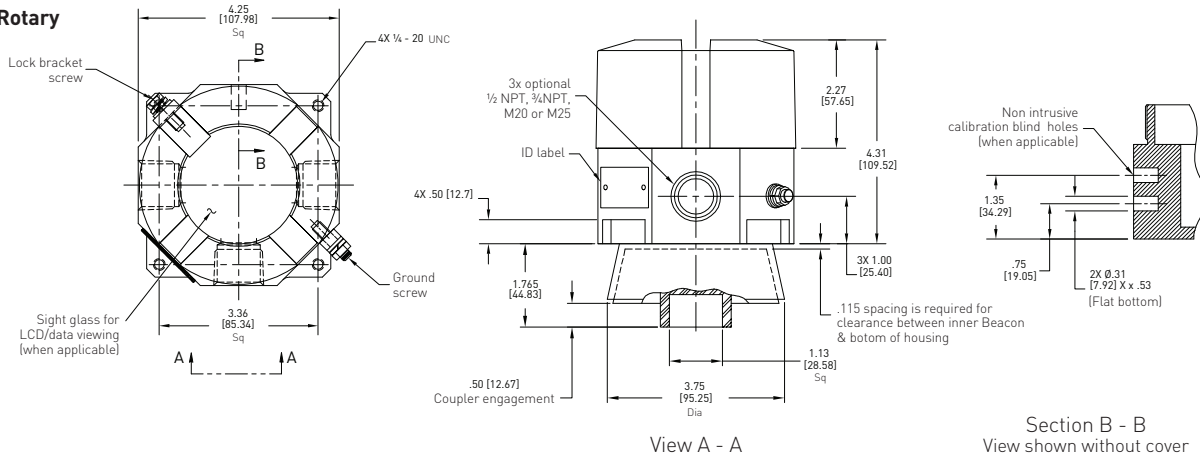
Digital EPIC position transmitters are ideal for applications with sophisticated process patterns and those that require partial stroke testing (PST) or remote emergency shut down (ESD) initiation.

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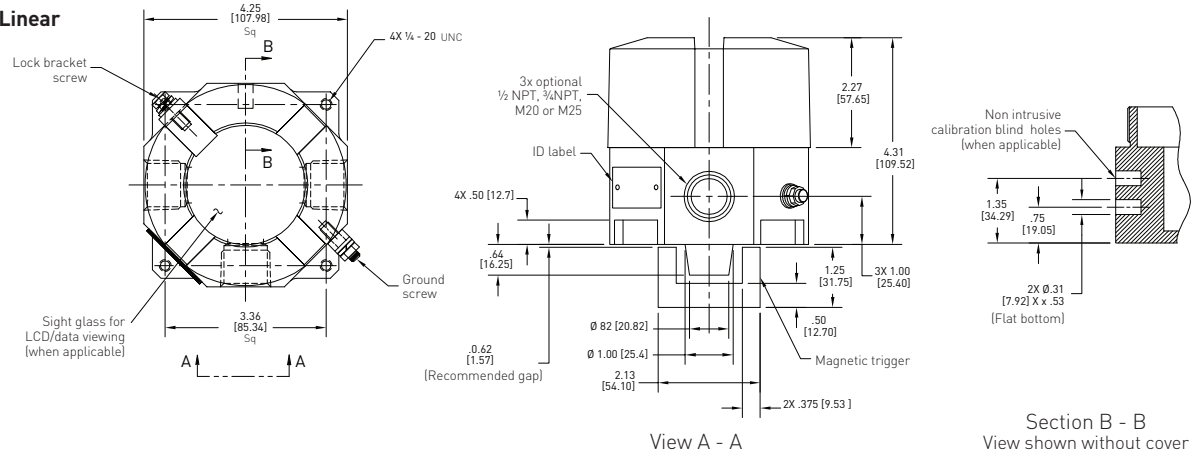
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DIMENSIONS MODELS D410/D420

Rotary



Linear



Dimensions in inches, metric dimension (mm) in parentheses

TECHNICAL SPECIFICATIONS

| | |
|--------------------------------------|--|
| Conduit entries | 1/2" NPT 3/4" NPT M20 M25 |
| Output | 4 - 20 mA proportional to valve position |
| Terminal voltage required | 10 to 30 V |
| Linearity* | ± 1.0% F.S. |
| Span adjustment | 60° to 120° |
| Zero adjustment | 30% of calibration span |
| Resolution | ≤ 0.05% F.S. |
| Hysteresis | Negligible |
| Standard operating temperature range | -40°C to +85°C (-40°F to +185°F) |
| Temperature effect | ≤ 0.01% F.S./°C |
| Humidity | 10% to 90% non-condensing |
| Voltage effect | ≤ 0.2% F.S. from 10 V DC to 30 V DC |
| Reverse polarity | Protected |
| Mounting attitude | Any position |
| Startup stabilization | 0.5 seconds |
| Output update rate | 25 ms |

NOTES

* Linearity is applicable for rotary and linear with stroke 2" and under.

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MODELS 410/420 SELECTION GUIDE

D410/D420 (ATEX/IEC)

| | |
|-------------------------|--|
| Base model | |
| D410 | Transmitter with XP site glass, ESD/PST capability & non-intrusive calibration |
| D420 | Mod 3 aluminium |
| Application type | |
| LV | Linear transmitter (specify stroke length, fail up or fail down) |
| LR | Linear transmitter with remote mount (specify stroke length, fail up or fail down) |
| RO | Rotary transmitter |
| RR | Rotary transmitter with remote mount |
| Certification | |
| A | ATEX certified |
| I | IECEX certified |
| Conduit options | |
| 1 | Three 1/2" NPT |
| 2 | Three M20 |
| 3 | Three 3/4" NPT |
| 6 | Three M25 |
| Solenoid | |
| 00000 | Not applicable |
| ESD/PST options | |
| 0 | None (required choice for D420) |
| 1 | ESD/PST |
| Beacon options | |
| 0 | None |
| 1 | Black/yellow Beacon indicator |
| D420 | RO A 2 00000 0 0 = Model number D420-RO-A-2-000000-0 |

NOTES

1. Please contact your sales office for guidance on selecting the best possible combination for your control and monitoring requirements.
2. See Hazardous area classification technical bulletin for further information on global standards.
3. Valve stroke and fail position must be specified at time of quotation for LV and LR options

D410/D420 (NEC)

| | |
|-------------------------|---|
| Base model | |
| D410 | Aluminum enclosure with XP site glass, ESD/PST capability and non-intrusive calibration [includes three 3/4" NPT (F)] |
| D420 | Aluminum enclosure with three 3/4" NPT (F)] |
| Application type | |
| LV | Linear transmitter ^[3] |
| LR | Linear transmitter with remote mount option ^[3] |
| RO | Rotary transmitter |
| RR | Rotary transmitter with remote mount option |
| ESD/PST | |
| 0 | None (required choice for D420) |
| 1 | ESD/PST function (required choice for D410) |
| D410 | RO 1 = Model number D410R01 |



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Westlock. We reserve the right to change designs and specifications without notice.