WESTLOCK CONTROLS

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

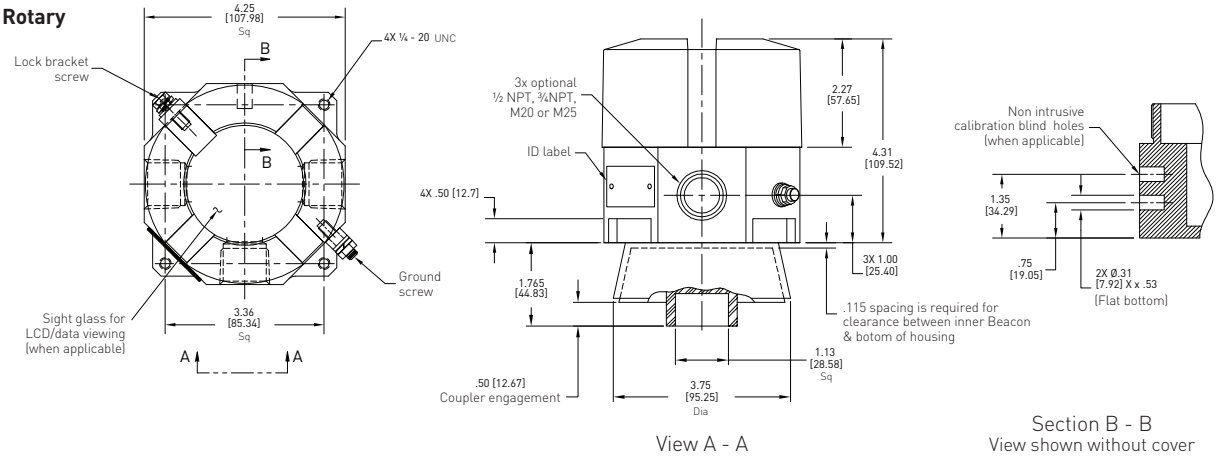
Area classification (ATEX/IEC)	
D410/D420	Ex d IIB+H2 AEx d IIB+H2 Ex nA IIC AEx nA IIC
Area classification (NEC 500)	
D410/D420	Class I, Division 1, Groups B,C & D Class I, Division 2, Groups A,B,C & D Class II, Division 1, Groups E,F & G Class III
Enclosure standards (IEC)	IP66
Enclosure standards (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.

DIMENSIONS MODELS D410/D420

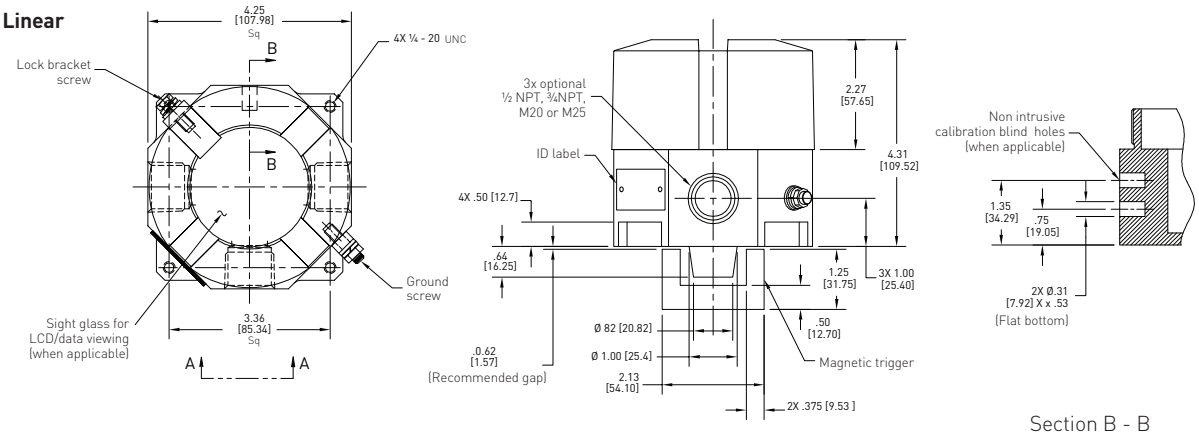
Rotary



View A - A

Section B - B
View shown without cover

Linear



View A - A

Section B - B
View shown without cover

Dimensions in inches, metric dimension (mm) in parentheses

TECHNICAL SPECIFICATIONS

Conduit entries	½"NPT ¾"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.

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 ½" NPT
2	Three M20
3	Three ¾" 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 ¾" NPT (F)]
D420	Aluminum enclosure with three ¾" 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 **D410RO1**

WESTLOCK
CONTROLS

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