

Discrete position control and precision, non-contact position feedback with digital communication via HART® protocol in a simple, integrated package. With options for linear or rotary control valves, and remote PST/ESD initiation.



Features

- Microprocessor based technology allows digital communication via HART® protocol.
- Remote and local partial stroke test (PST) and emergency shut down (ESD) initiated remotely via HART® signal for safety system applications.
- Optional external button to initiate partial stroke test.
- Valve position measurement via a non-contact magnetic pick-up eliminates mechanical drive arms or linkages increasing reliability in high cycle applications or where vibration is present.
- Highly visible position indicator.
- Models D430 and D431 feature corrosion-resistant resin enclosure.
- Models D450 and D451 feature heavy duty stainless steel enclosure.

Technical Data

Agency approvals

Area classification (ATEX/IEC)

Ex II 1 G Ex ia IIC T4 Ta = -20°C to +60°C
Ex II 3 G Ex nA IIC T4 Ta = -20°C to +60°C

| | |
|------|-------------------|
| D430 | IP55 |
| D450 | IP67 |
| D451 | IP68 |
| D431 | Approvals pending |

Enclosures

| | |
|-----------|------------------|
| D430/D431 | Engineered resin |
| D450/D451 | Stainless steel |

Technical specifications

| | |
|--|--|
| Conduit entries | M20, M25, 1/2"NPT, 3/4"NPT |
| 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°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

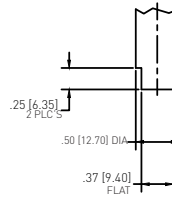
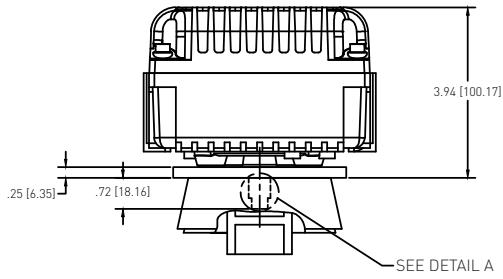
* Linearity is applicable for stroke 2" and under for linear application.

** Engineered resin enclosures -10°F to +185°F for hazardous area use.

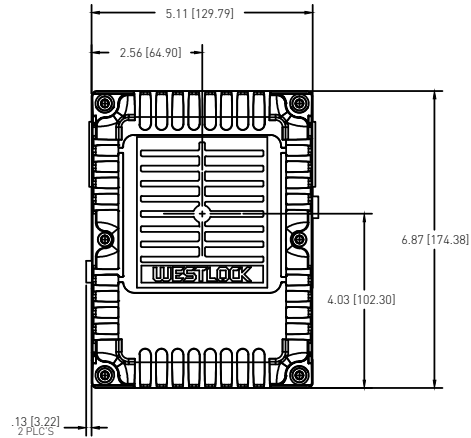
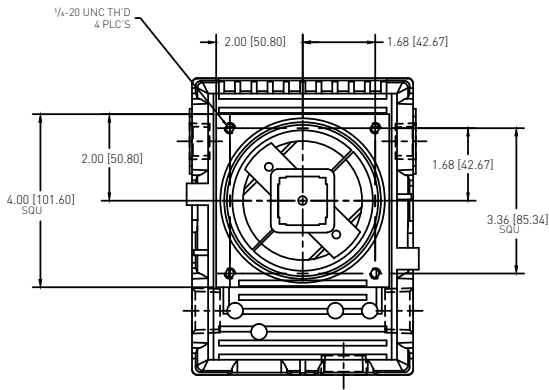
Digital EPIC Control Transmitters

Weatherproof - IEC

Dimensions Model 430



DETAIL A
SCALE 2:1



Dimension in inches, metric dimension (mm) in parentheses

Technical specifications

Materials of construction

| | |
|-------------------------|----------------------------|
| Enclosure | Engineered polyamide resin |
| Shaft and hardware | Stainless steel |
| Beacon visual indicator | Co-polyester |
| Bushing | Nylon |

Please consult your sales office for any other requirements

Notes

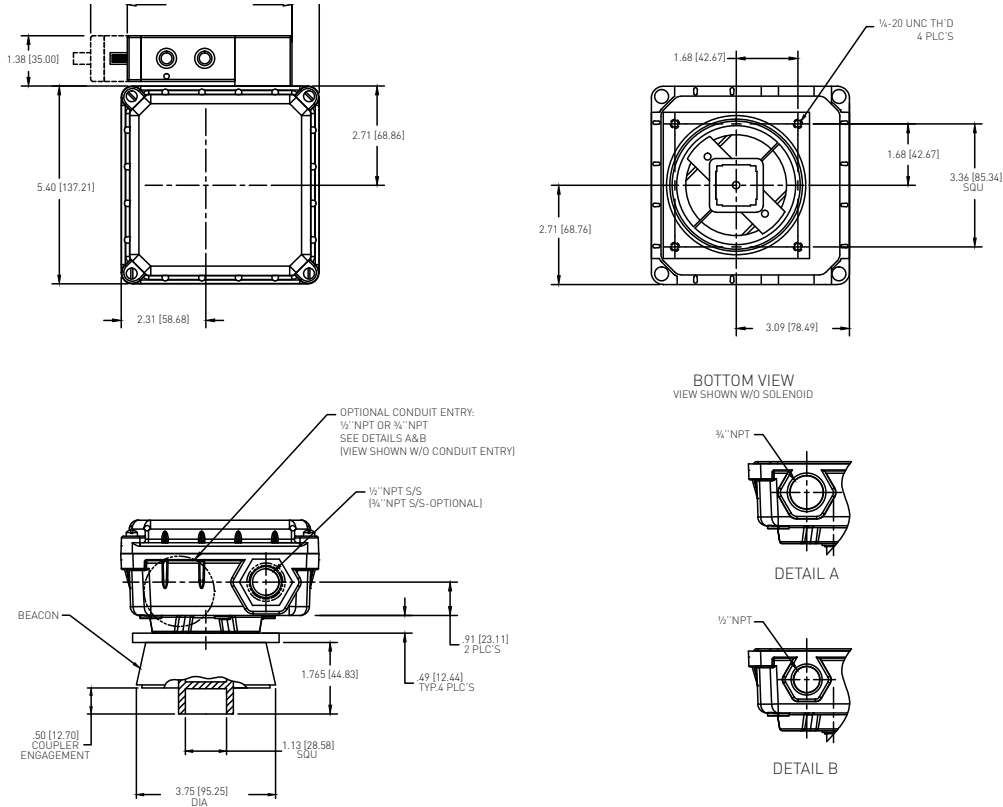
Conduit entries

Digital EPIC position and control transmitters are available with a choice of conduit entries. Please see the selection guide for standard entries.

Digital EPIC Control Transmitters

Weatherproof - IEC

Dimensions Model D431



Dimension in inches, metric dimension (mm) in parentheses

Technical specifications

Materials of construction

| | |
|-------------------------|----------------------------|
| Enclosure | Engineered polyamide resin |
| Shaft and hardware | Stainless steel |
| Beacon visual indicator | Co-polyester |
| Bushing | Nylon |

Please consult your sales office for any other requirements

Notes

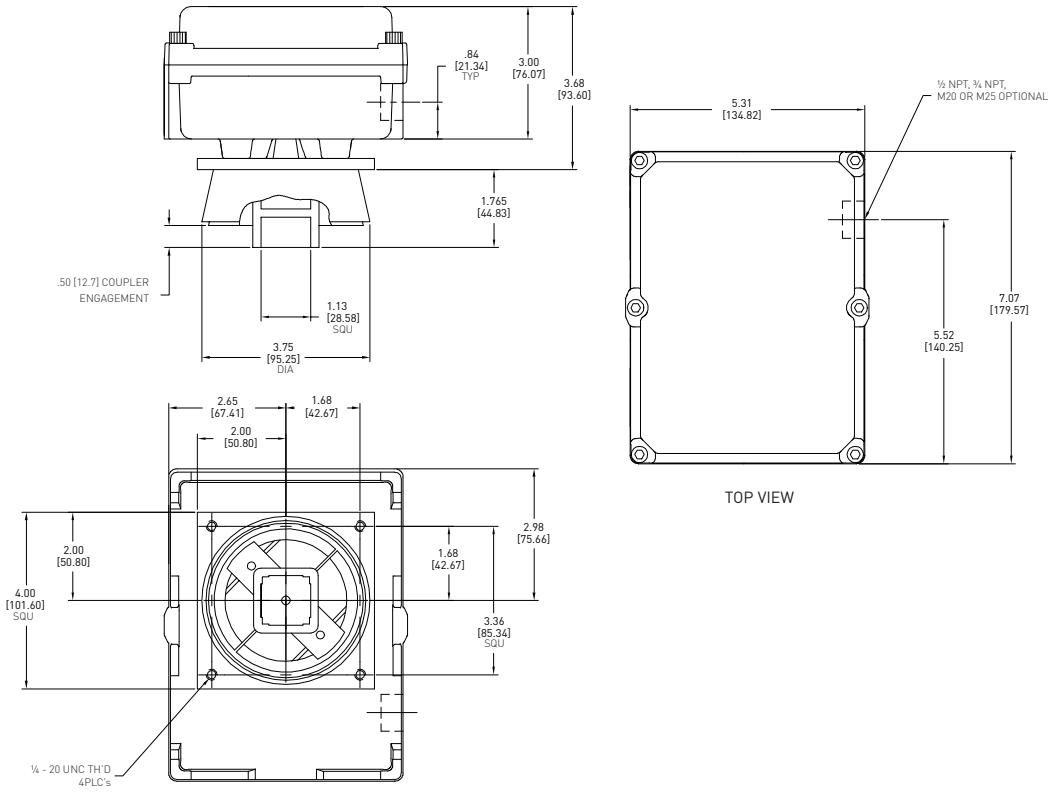
Conduit entries

Digital EPIC position and control transmitters are available with a choice of conduit entries. Please see the selection guide for standard entries.

Digital EPIC Control Transmitters

Weatherproof, Intrinsically Safe - ATEX/IEC

Dimensions Model D450



Dimensions in inches, metric dimension (mm) in parantheses.

Technical specifications

Materials of construction

| | |
|-------------------------|---|
| Enclosure | Stainless steel with electropolished finish |
| Shaft and hardware | Stainless steel |
| Beacon visual indicator | Co-polyester |
| Bushing | Oil impregnated bronze |

Please consult your sales office for any other requirements

Notes

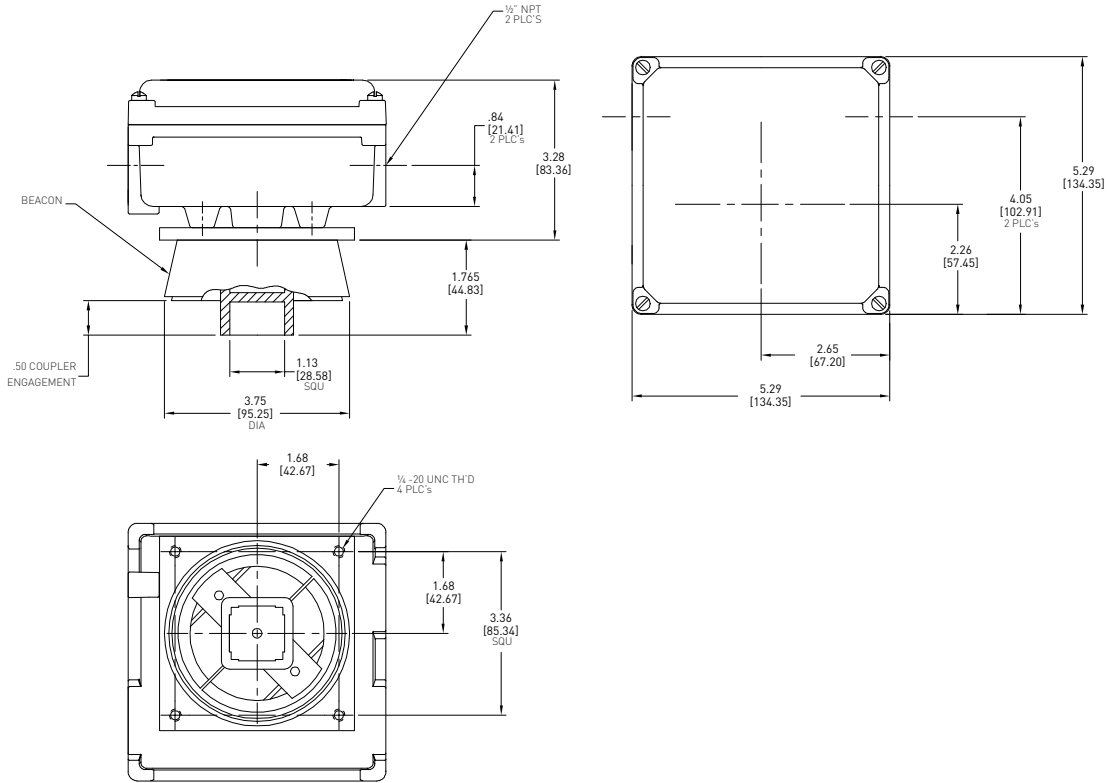
Conduit entries

Digital EPIC position and control transmitters are available with a choice of conduit entries. Please see the selection guide for standard entries.

Digital EPIC Control Transmitters

Weatherproof, Intrinsically Safe - ATEX/IEC

Dimensions Model D451



Dimensions in inches, metric dimension (mm) in parantheses.

Technical specifications

Materials of construction

| | |
|-------------------------|---|
| Enclosure | Stainless steel with electropolished finish |
| Shaft and hardware | Stainless steel |
| Beacon visual indicator | Co-polyester |
| Bushing | Oil impregnated bronze |

Please consult your sales office for any other requirements

Notes

Conduit entries

Digital EPIC position and control transmitters are available with a choice of conduit entries. Please see the selection guide for standard entries.



Base model

- D430 N4R2 large resin
- D431 N4R resin
- D450 N4S2 large stainless steel
- D451 N4S stainless steel

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

- 0 General purpose/non-hazardous [D430/D431 Models only]
- A ATEX certified [D450/D451 Models only]
- I IECEx certified [D450/D451 Models only]

Conduit Options

- 1 Two 1/2" NPT
- 2 Two M20
- 3 Two 3/4" NPT
- 4 Two M25

Solenoid

000000 Not applicable

Beacon Options

- 0 None
- 1 Black/yellow Beacon indicator

D450 RO A 2 000000 0 = Model number **D450-RO-A-2-000000-0**

Notes

Specifying your control transmitter

Specifying a control transmitter is a complex process as there are many variables which affect each individual application. To ensure that you receive the best possible combination for your control and monitoring requirement, please contact your local sales office for advice and guidance from one of our experts.

Hazardous area classification

Please see our data sheet for further information on the global standards affecting the specification and installation of equipment in hazardous areas.

US/Canada: Saddle Brook, NJ

Ph: +1 201 794 7650
Fax: +1 201 794 0913
E-mail: westlockinfo@westlockcontrols.com

South America: Sao Paulo, Brazil

Ph: +55 11 2588 1400
Fax: +55 11 2588 1410
E-mail: comercial@westlock.com.br

Europe: Kent, England

Ph: +44 1892 516277
Fax: +44 1892 707620
E-mail: sales@westlockuk.com

Asia: Singapore

Ph: +65 6768 5850
E-mail: sales@westlockuk.com