

## DIGITAL EPIC CONTROL TRANSMITTERS

WEATHERPROOF, INTRINSICALLY SAFE - ATEX/IEC

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 D440 and D441 feature low copper content aluminum enclosure with polyurethane enamel coating.
- 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 = -40°C to +80°C  
Ex II 3 G Ex nA IIC T4 Ta = -40°C to +80°C

D430

IP55

D450

IP67

D451

IP68

D431

Approvals pending

#### Enclosures

D430/D431

Engineered resin

D440/D441

Low copper content aluminum

D450/D451

Stainless steel

### 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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## TECHNICAL SPECIFICATIONS

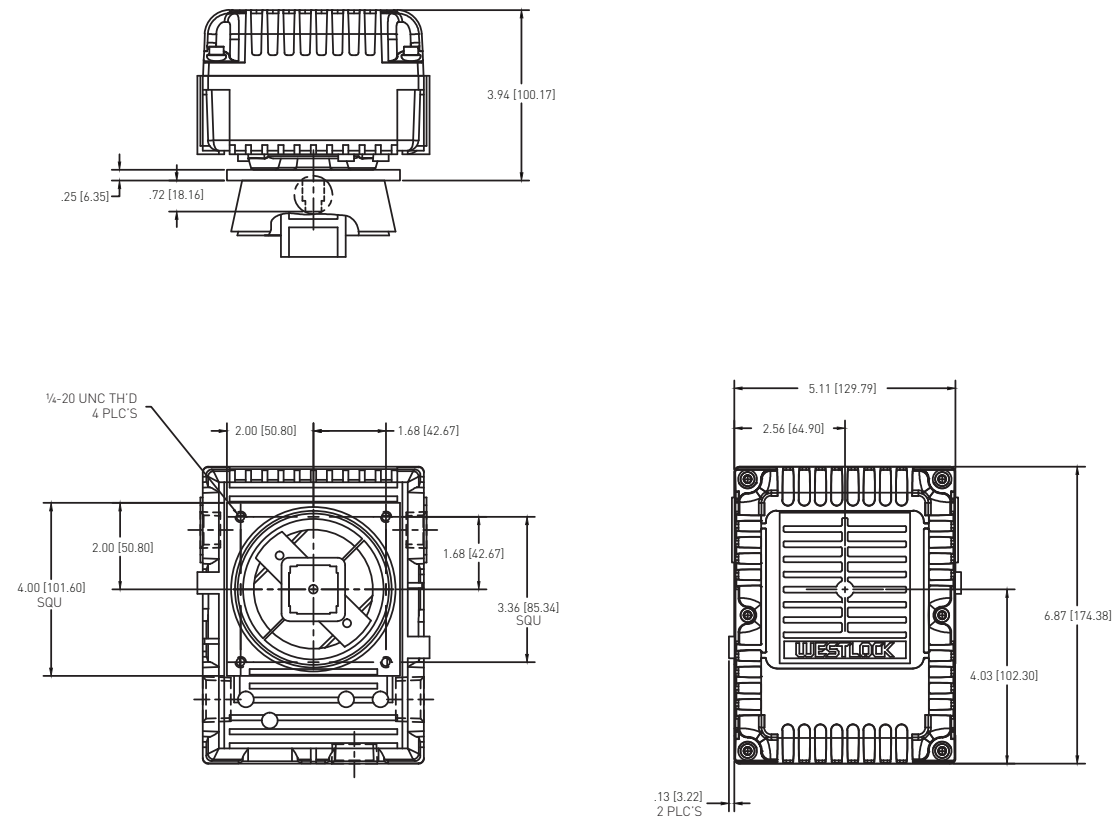
Conduit entries	M20, M25, ½"NPT, ¾"NPT
Output	4 - 20 mA proportional to valve position
Terminal voltage required	10 to 30 V
Linearity*	± 1.0% F.S.
Span adjustment	60° to 120°
Zero adjustment	30% of calibration span
Resolution	≤ 0.05% F.S.
Hysteresis	Negligible
Standard operating temperature range**	-40°C to +85°C
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 -23°C to +85°C for hazardous area use.

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DIMENSIONS MODEL D430 / D440



Dimension in inches, metric dimension (mm) in parentheses

TECHNICAL SPECIFICATIONS

Materials of construction

Enclosure	Engineered polyamide resin
	Low copper content aluminum polyurethane coated
Hardware	Stainless steel
Beacon visual indicator	Co-polyester

Please consult your sales office for any other requirements

NOTES

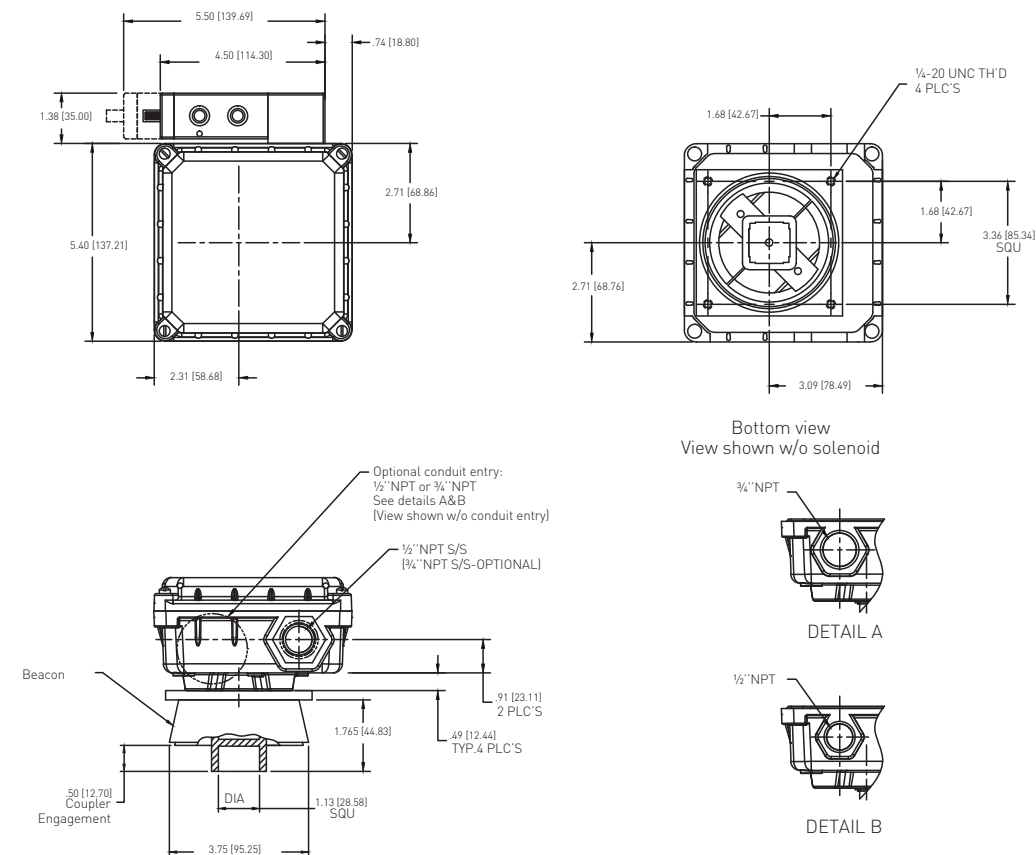
Conduit entries

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

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DIMENSIONS MODEL D431



Dimension in inches, metric dimension (mm) in parentheses

TECHNICAL SPECIFICATIONS

Materials of construction

Enclosure	Engineered polyamide resin
Hardware	Stainless steel
Beacon visual indicator	Co-polyester

Please consult your sales office for any other requirements

NOTES

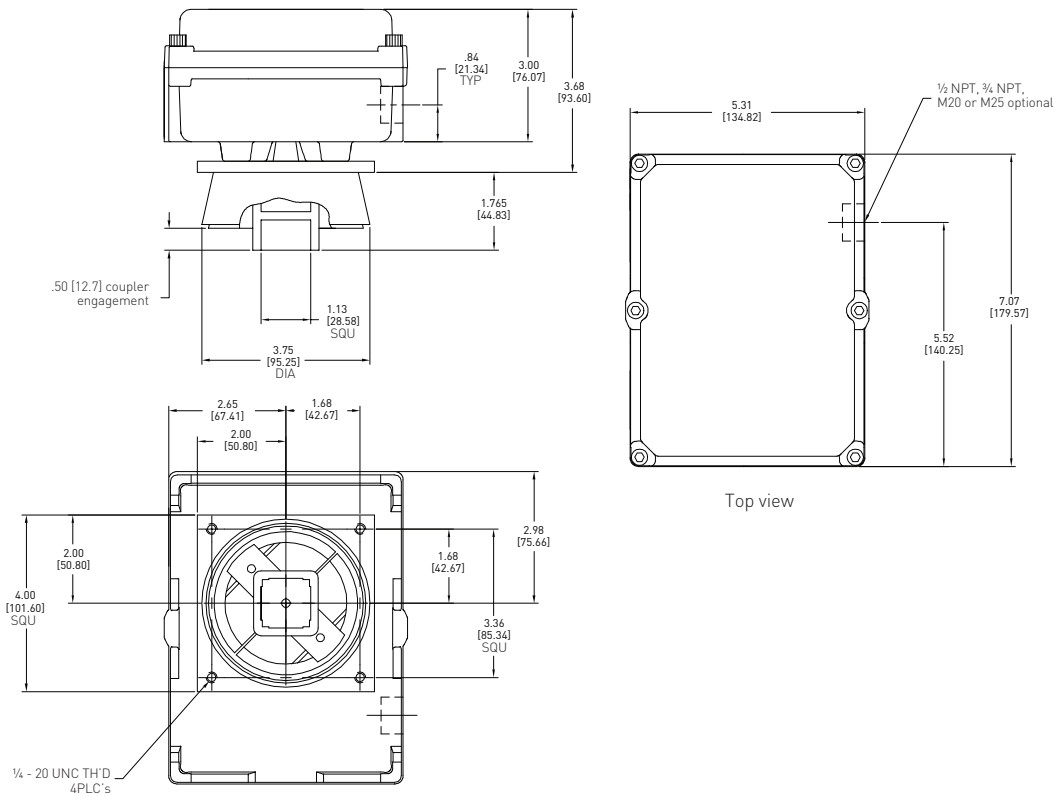
Conduit entries

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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
Hardware	Stainless steel
Beacon visual indicator	Co-polyester

Please consult your sales office for any other requirements

NOTES

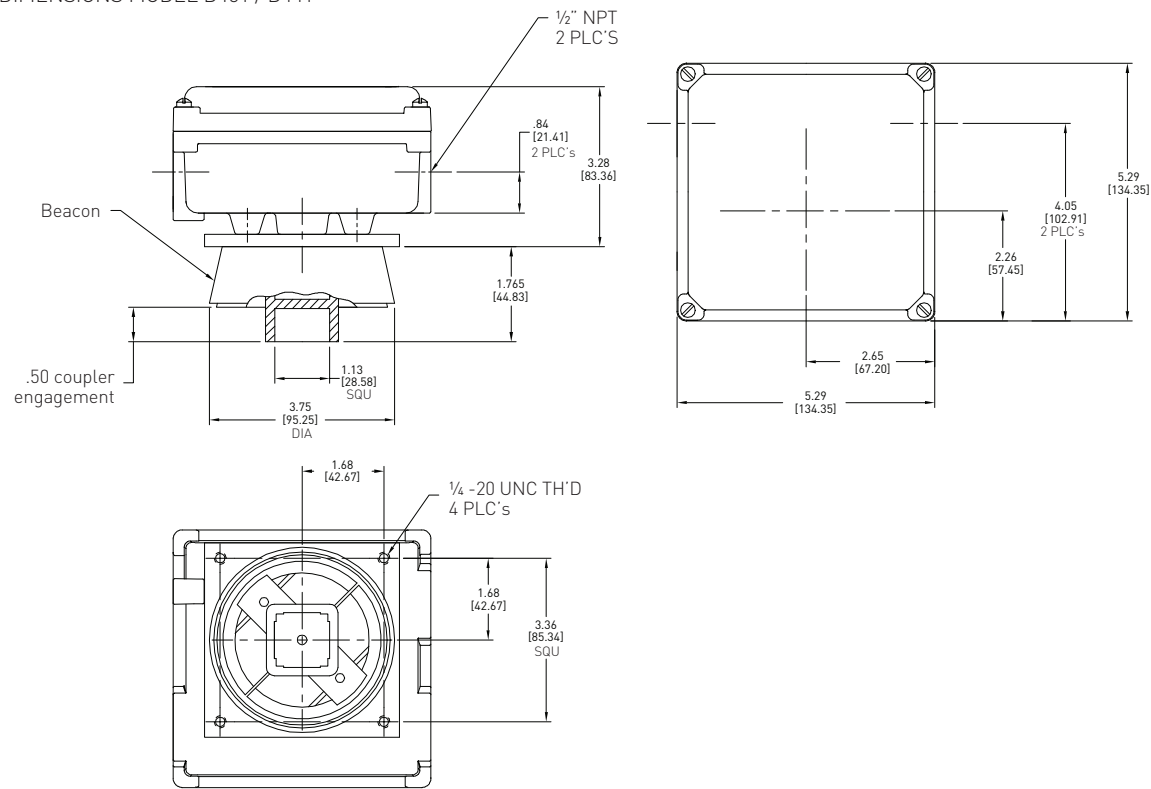
Conduit entries

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 / D441



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

TECHNICAL SPECIFICATIONS

Materials of construction

Enclosure	Stainless steel with electropolished finish
Hardware	Low copper aluminum polyurethane coated
Beacon visual indicator	Co-polyester

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

## MODELS D430/D431/D450/D451 SELECTION GUIDE

Base model					
D430	N4R2 large resin				
D431	N4R resin				
D440	N4A2 large aluminium				
D441	N4A aluminium				
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 ½" NPT				
2	Two M20				
3	Two ¾" 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 <b>D450-RO-A-2-000000-0</b>

### 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.



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