WESTLOCK CONTROLS

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.

TECHNICAL SPECIFICATIONS

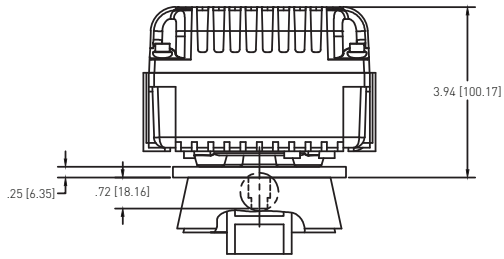
Conduit entries	M20, M25, ½"NPT, ¾"NPT
Output	4 - 20 mA proportional to valve position
Terminal voltage required	10 to 30 V
Linearity*	± 1.0% F.S.
Span adjustment	60° to 120°
Zero adjustment	30% of calibration span
Resolution	≤ 0.05% F.S.
Hysteresis	Negligible
Standard operating temperature range**	-40°C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

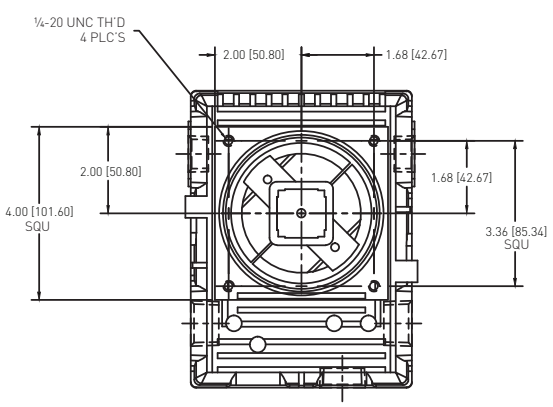
NOTES

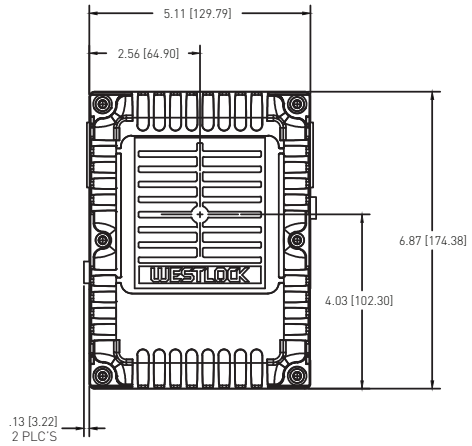
* Linearity is applicable for stroke 2" and under for linear application.

** Engineered resin enclosures -23°C to +85°C for hazardous area use.

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

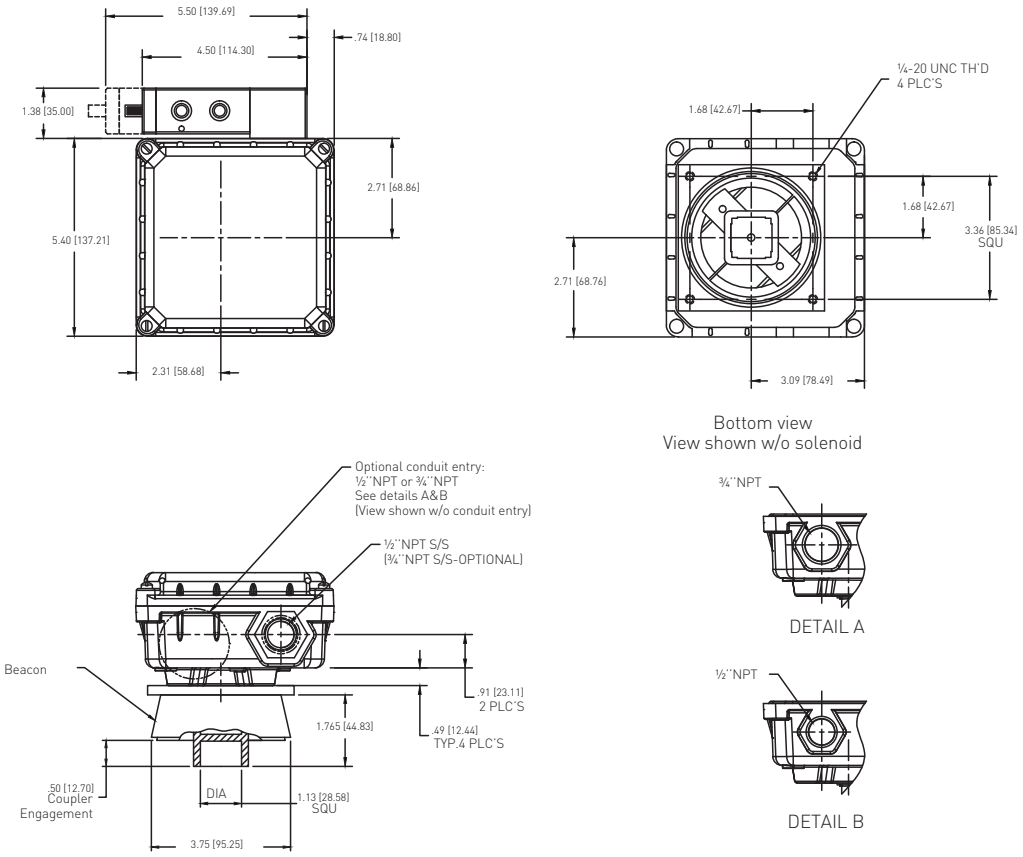
Please consult your sales office for any other requirements

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.

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

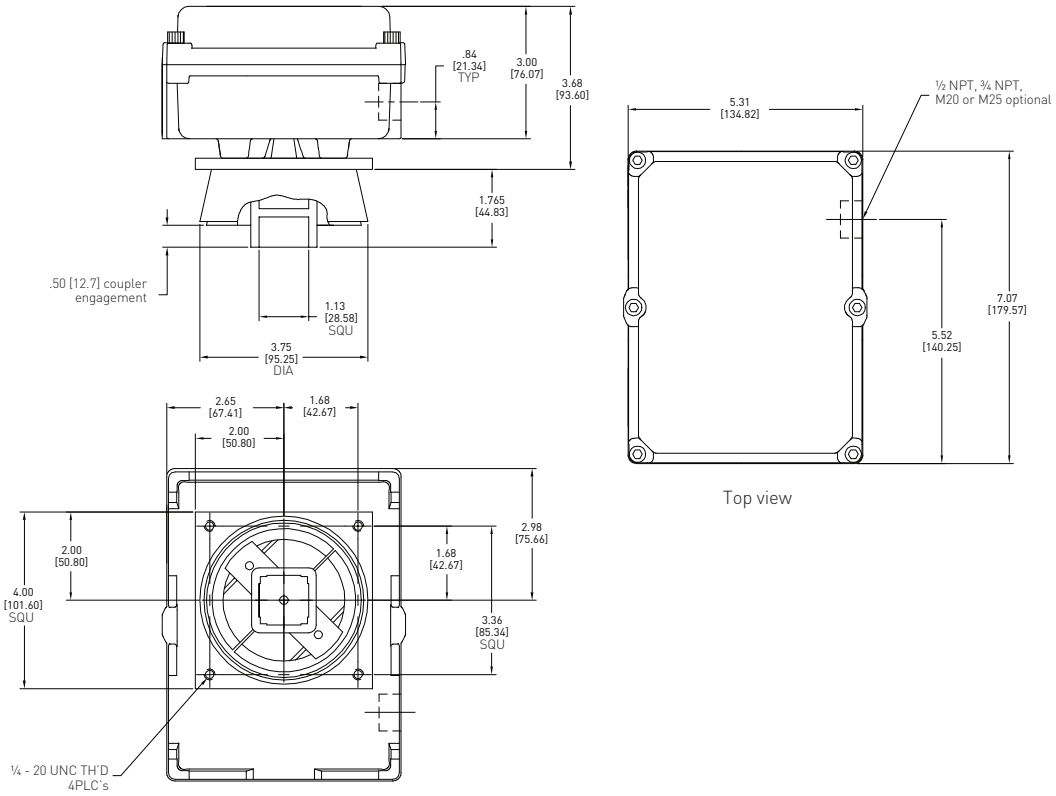
Please consult your sales office for any other requirements

NOTES

Conduit entries

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

DIMENSIONS MODEL D450



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

TECHNICAL SPECIFICATIONS

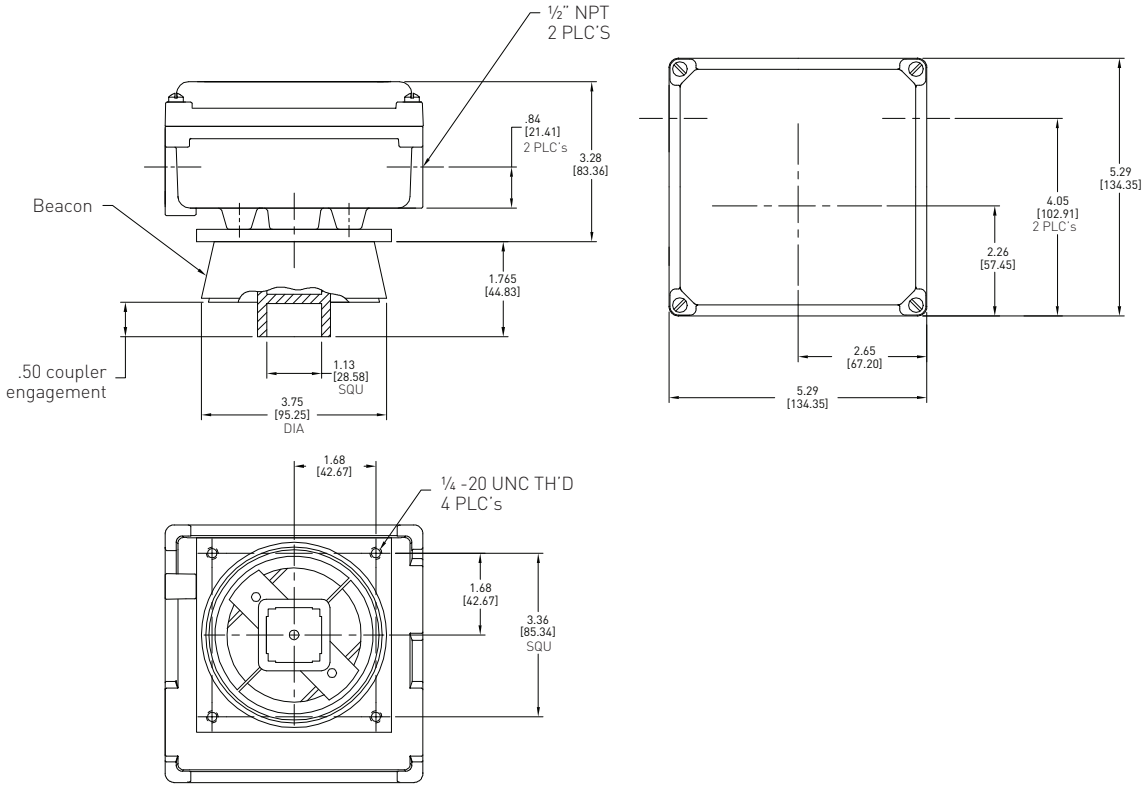
Materials of construction	
Enclosure	Stainless steel with electropolished finish
Hardware	Stainless steel
Beacon visual indicator	Co-polyester

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.

DIMENSIONS MODEL D451 / D441



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

TECHNICAL SPECIFICATIONS

Materials of construction

Enclosure	Stainless steel with electropolished finish
	Low copper 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.

Base model	Application type	Certification	Conduit options	Solenoid	Beacon options	
D430 N4R2 large resin	LV Linear transmitter (specify stroke length, fail up or fail down)	0 General purpose/non-hazardous (D430/D431 Models only)	1 Two ½" NPT	000000 Not applicable	0 None	
D431 N4R resin	LR Linear transmitter with remote mount (specify stroke length, fail up or fail down)	A ATEX certified (D450/D451 Models only)	2 Two M20		1 Black/yellow Beacon indicator	
D440 N4A2 large aluminium	RO Rotary transmitter	I IECEx certified (D450/D451 Models only)	3 Two ¾" NPT			
D441 N4A aluminum	RR Rotary transmitter with remote mount		4 Two M25			
D450 N4S2 large stainless steel						
D451 N4S stainless steel						
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.

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