WESTLOCK CONTROLS

DIGITAL EPIC CONTROL TRANSMITTERS

NON-INCENDIVE - NEC

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.
- Available with low power Falcon solenoid valve.
- Solenoid coils integrated within enclosure.
- Choice of factory pre-wired 3 and 4-way Falcon solenoid valves.
- Solenoid valves with a choice of C_v ratings and coil voltage.
- Models D430 and D431 feature corrosion-resistant resin enclosure.
- Models D450 and D451 feature heavy duty stainless steel enclosure.

TECHNICAL DATA

Agency approvals	
Enclosure standards (ANSI/NEMA 250)	
All enclosures	Type 4X
Enclosures	
D430/D431	Engineered resin
D450/D451	Stainless steel
Falcon solenoid valves	
C_v	Choice of 1.4 and 4.3
Materials	Brass, aluminum and 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	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°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.
Standard Falcon valve operating temperature range -4°F to +185°F, with optional -40°F to +185°F.

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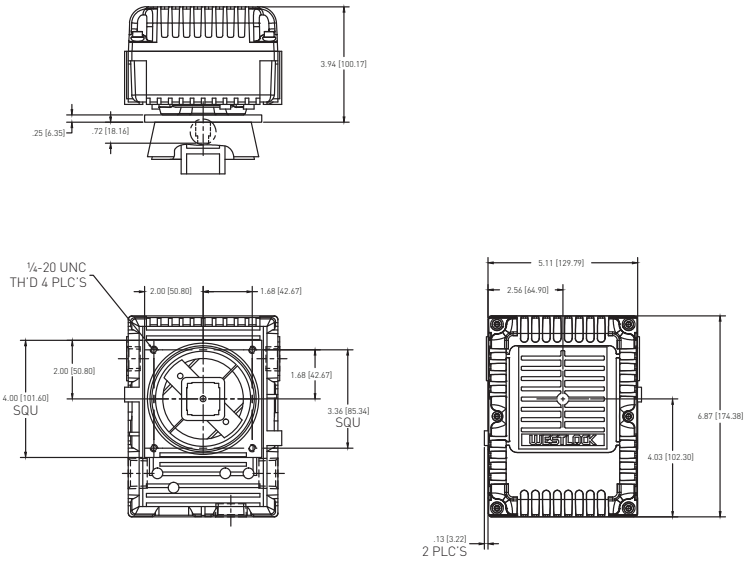
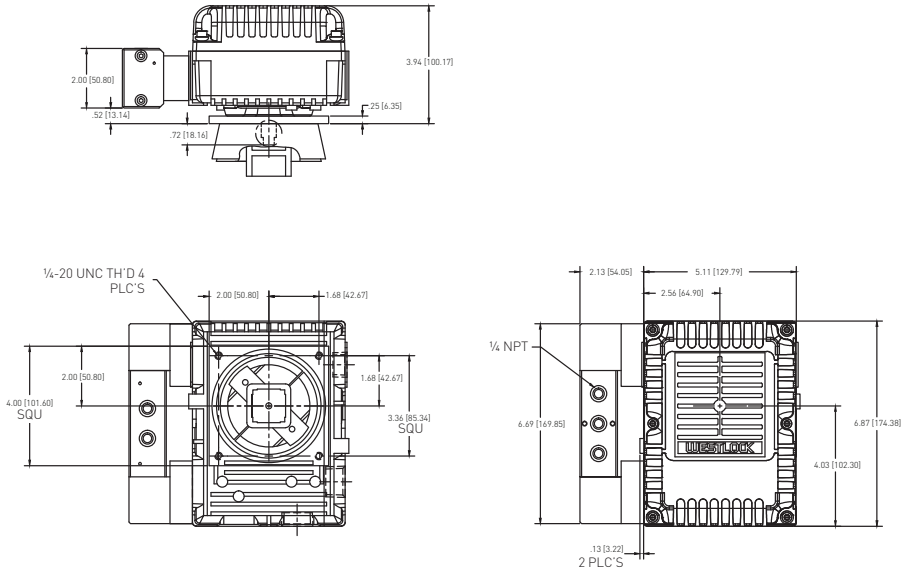
DIMENSIONS MODEL D430 (NO SOLENOID)



Dimension in inches, metric dimension (mm) in parentheses.

DIMENSIONS MODEL D430 (DUAL COIL OPTION)



Dimension in inches, metric dimension (mm) in parentheses.
Solenoid valve dimensions are indicative only and are dependent on solenoid valve selected.

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.

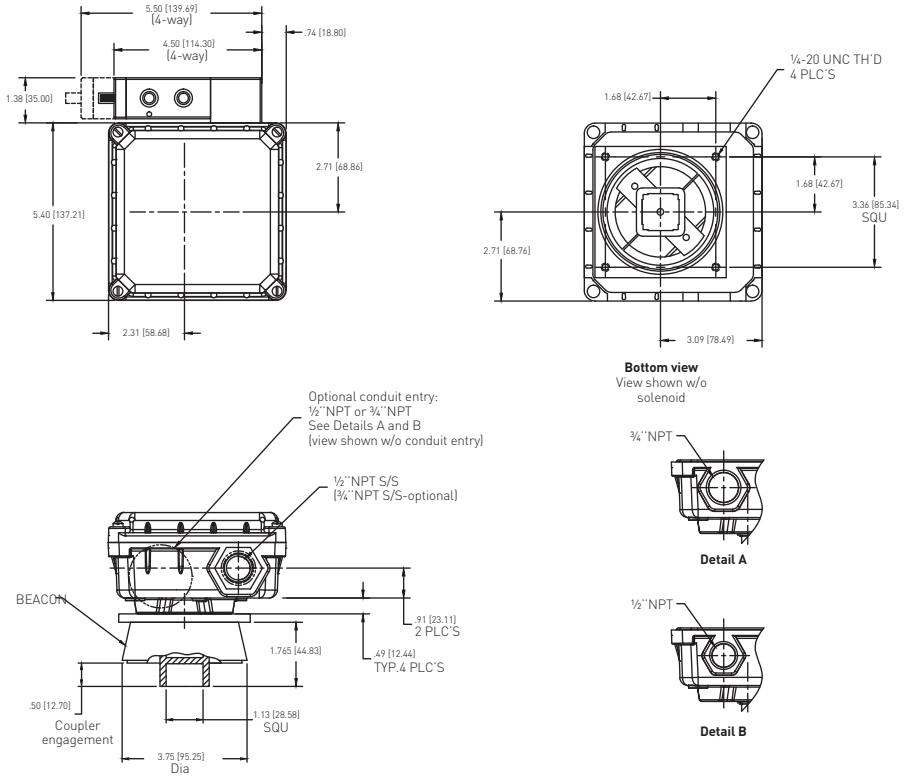
Solenoid valves

The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and C_V to best suit your application. See the Falcon data sheet for more information.

DIGITAL EPIC CONTROL TRANSMITTERS

NON-INCENDIVE - NEC

DIMENSIONS MODEL D431



Dimension in inches, metric dimension (mm) in parentheses.

Solenoid valve dimensions are indicative only and are dependent on solenoid valve selected.

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

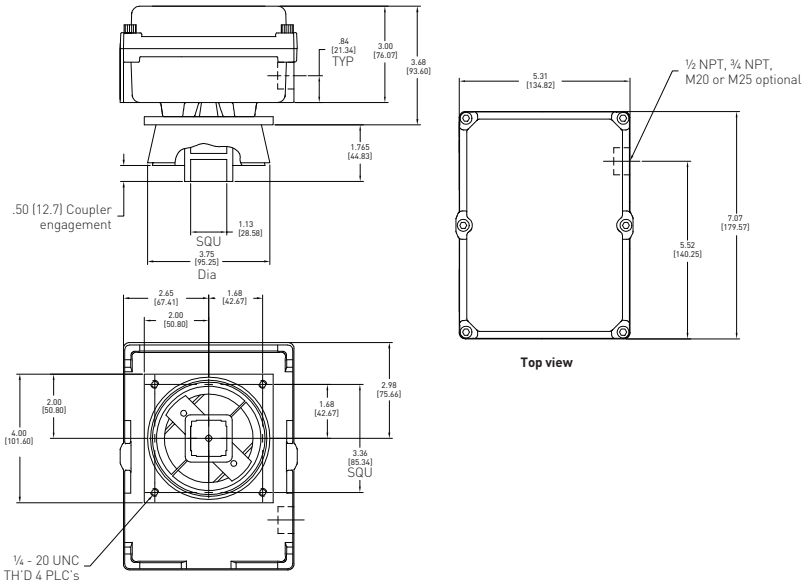
Conduit entries

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

Solenoid valves

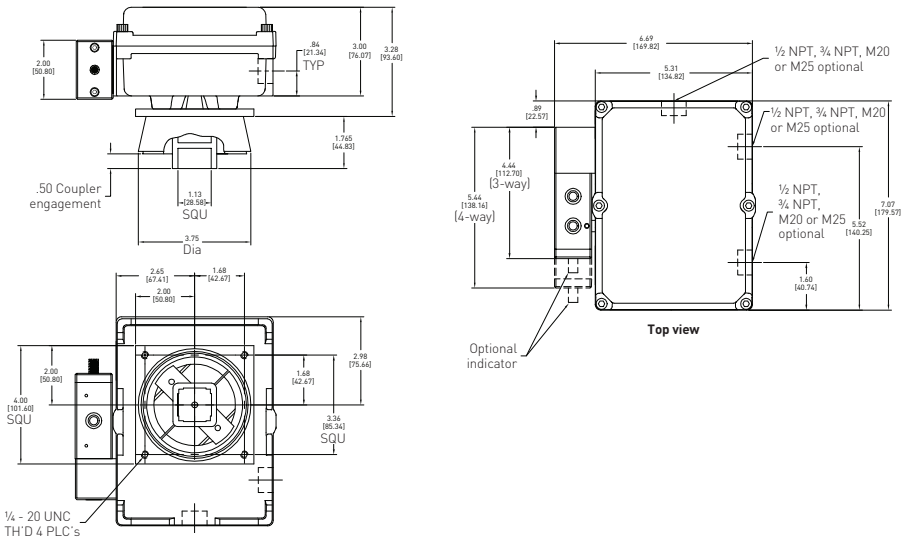
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and C_v to best suit your application. See the Falcon data sheet for more information.

DIMENSIONS MODEL D450 (NO SOLENOID)



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

DIMENSIONS MODEL D450



Dimension in inches, metric dimension (mm) in parentheses.
Solenoid valve dimensions are indicative only and are dependent on solenoid valve selected.

TECHNICAL SPECIFICATIONS

Materials of construction

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

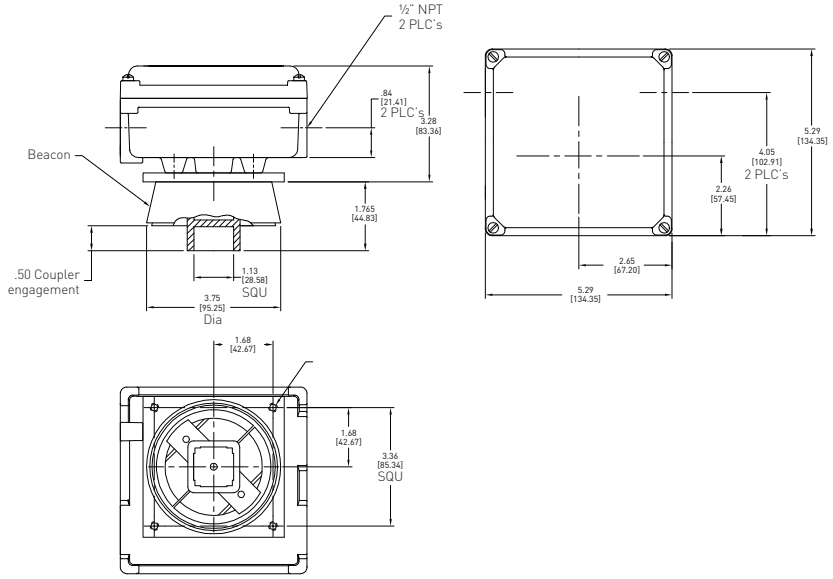
Please consult your sales office for any other requirements.

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.

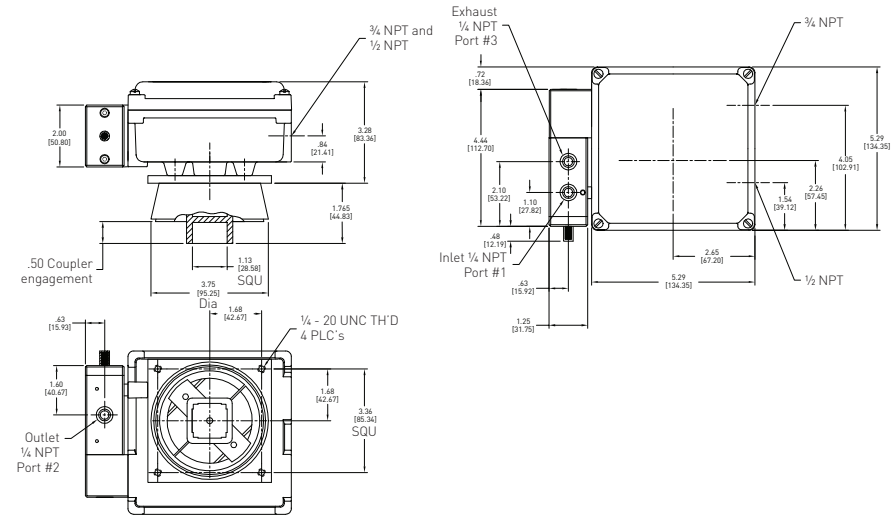
Solenoid valves
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and C_v to best suit your application. See the Falcon data sheet for more information.

DIMENSIONS MODEL D451 (NO SOLENOID)



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

DIMENSIONS MODEL D451



Dimension in inches, metric dimension (mm) in parentheses.
Solenoid valve dimensions are indicative only and are dependent on solenoid valve selected.

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.

Solenoid valves
The Falcon range of solenoid valves allows you to choose the material, voltage, number of ports, number of coils and C_v to best suit your application. See the Falcon data sheet for more information.

DIGITAL EPIC CONTROL TRANSMITTERS

SELECTION GUIDE

Base model

D430	Engineered resin enclosure for dual coil
D431	Engineered resin enclosure
D450	Stainless steel enclosure for dual coil
D451	Stainless steel enclosure

Application type

LV	Linear transmitter***
LR	Linear transmitter with remote mount option***
RO	Rotary transmitter
RR	Rotary transmitter with remote mount option

ESD/PST/PIN connector

0	None w/ ¾ NPT
1	ESD function w/ ¾ NPT
2	PST function w/ ¾ NPT
3	Micro (EURO) w/ ½ NPT
4	ESD function micro (EURO) w/ ½ NPT
5	PST function micro (EURO) w/ ½ NPT
6	Mini w/ ½ NPT
7	ESD function w/mini ½ NPT
8	PST function w/mini ½ NPT

Coil voltage

0	None
D	7.2 V DC

Falcon V valve body

2V3	1.4 C_v, 3-way, brass	2V7	1.4 C_v, 4-way, brass
3V3	1.4 C_v, 3-way, aluminum	3V7	1.4 C_v, 4-way, aluminum
5V3	1.4 C_v, 3-way, 316 SS	5V7	1.4 C_v, 4-way, 316 SS
3V4	4.3 C_v, 3-way, aluminum**	3V8	4.3 C_v, 4-way, aluminum
2VY	1.4 C_v, dual coil, brass*	3VY	1.4 C_v, dual coil, aluminum*
5VY	1.4 C_v, dual coil, 316 SS*	3VZ	4.3 C_v, dual coil, aluminum*

Valve options

0	None
M	Momentary over-ride
L	Locking over-ride
R	Manual reset
N	Manual reset with latch
E	External pilot

F431	RO	1	D	3V3	0	= Model number **F431RO1D3V30**

* Dual coil valve body options only available with base Models D430 and D450.

** 3V4 valves are 3V8 with ports 2 and 3 plugged at the factory for 3-way functionality.

*** Valve stroke and fail position must be specified at time of quotation for LV and LR options.

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.

WESTLOCK
CONTROLS

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