

DIGITAL EPIC CONTROL TRANSMITTERS

EXPLOSIONPROOF - NEC

Discrete position control and precision, non-contact position feedback with digital communication via HART® protocol in an explosionproof, 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.
- 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.
- Model D460 features a low copper aluminum enclosure with powder coat finish.
- Model D470 features a heavy duty stainless steel enclosure.

TECHNICAL DATA

Agency approvals

Area classification (NEC 500)
All models

Class I, Division 1, Groups B, C & D
Class I, Division 2, Groups A, B, C & D
Class II & III, Division 1, Groups E, F & G

Enclosure standards (ANSI/NEMA 250)
All models

Type 4, 4X, 6P

Enclosure

D460
D470

Aluminum
Stainless steel

Falcon solenoid valves (single coil only)

C_v
Materials

Choice of 1.4 and 4.3
Brass, aluminum and stainless steel

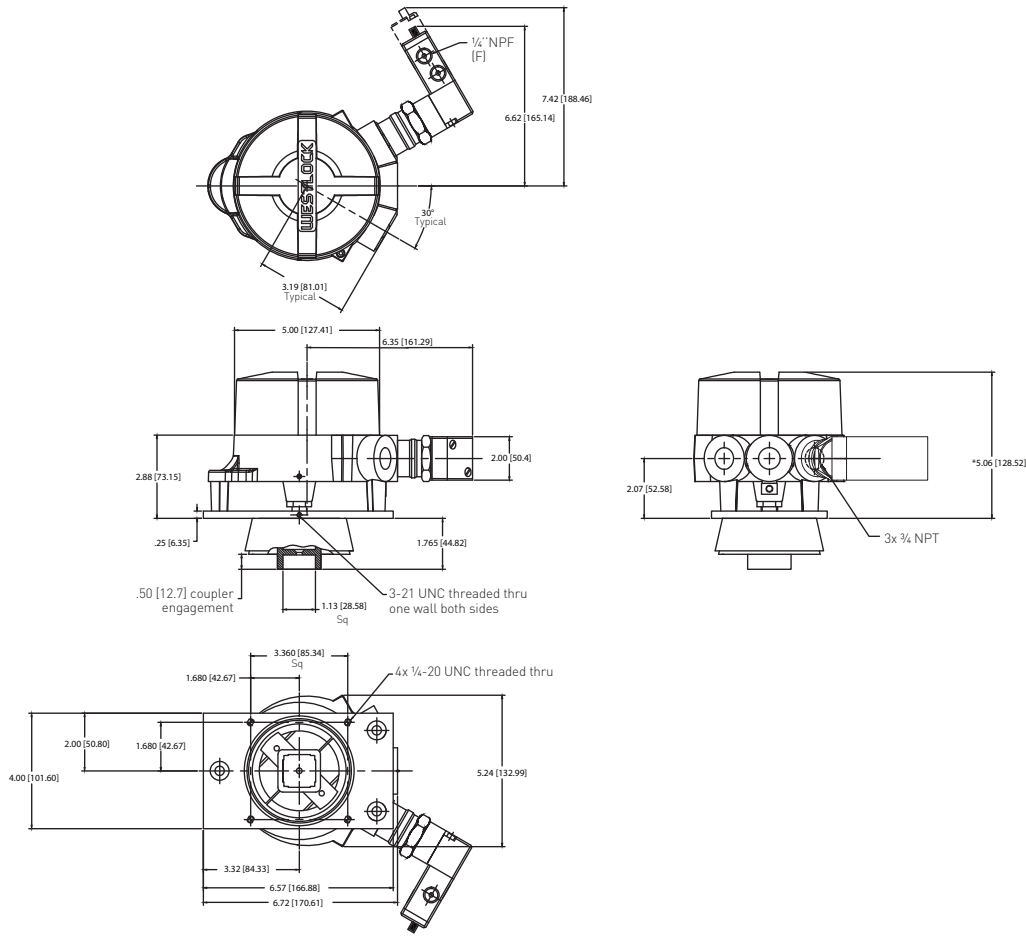
GENERAL APPLICATION

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.

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DIMENSIONS MODELS D460 AND D470



Dimensions 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	
Model D460	Aluminum with powder coat finish
Model D470	Stainless steel with electropolished finish
Hardware	Stainless steel
Beacon visual indicator	Co-polyester

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 II data sheet for more information.

NOTES

1. See selection guide for standard conduit entries
2. Please consult your sales office for any other requirements

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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

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

** Standard Falcon valve operating temperature range -4°F to +185°F, with optional -40°F to +185°F.

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MODELS D460 AND D470 SELECTION GUIDE

Base model

D460 Aluminum enclosure with three 3/4" NPT [F] or two 3/4" NPT [F] with solenoid valve
 D470 Stainless steel enclosure with three 3/4" NPT [F] or two 3/4" NPT [F] with solenoid valve

Application type

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

ESD/PST

0 None
 1 ESD/PST function

Coil voltage

0 None
 X 24 V DC (XP coil)

Falcon V valve body

2V3	1.4 Cv, 3-way, brass	2V7	1.4 Cv, 4-way, brass
3V3	1.4 Cv, 3-way, aluminum	3V7	1.4 Cv, 4-way, aluminum
5V3	1.4 Cv, 3-way, 316 SS	5V7	1.4 Cv, 4-way, 316 SS
3V4	4.3 Cv, 3-way, aluminum*	3V8	4.3 Cv, 4-way, aluminum

Valve options

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

D470 LR 1 X 3V3 0 = Model number **D470LR1X3V30**

NOTES

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

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.



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