

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

Choice of 1.4 and 4.3

Materials

Brass, aluminum and stainless steel

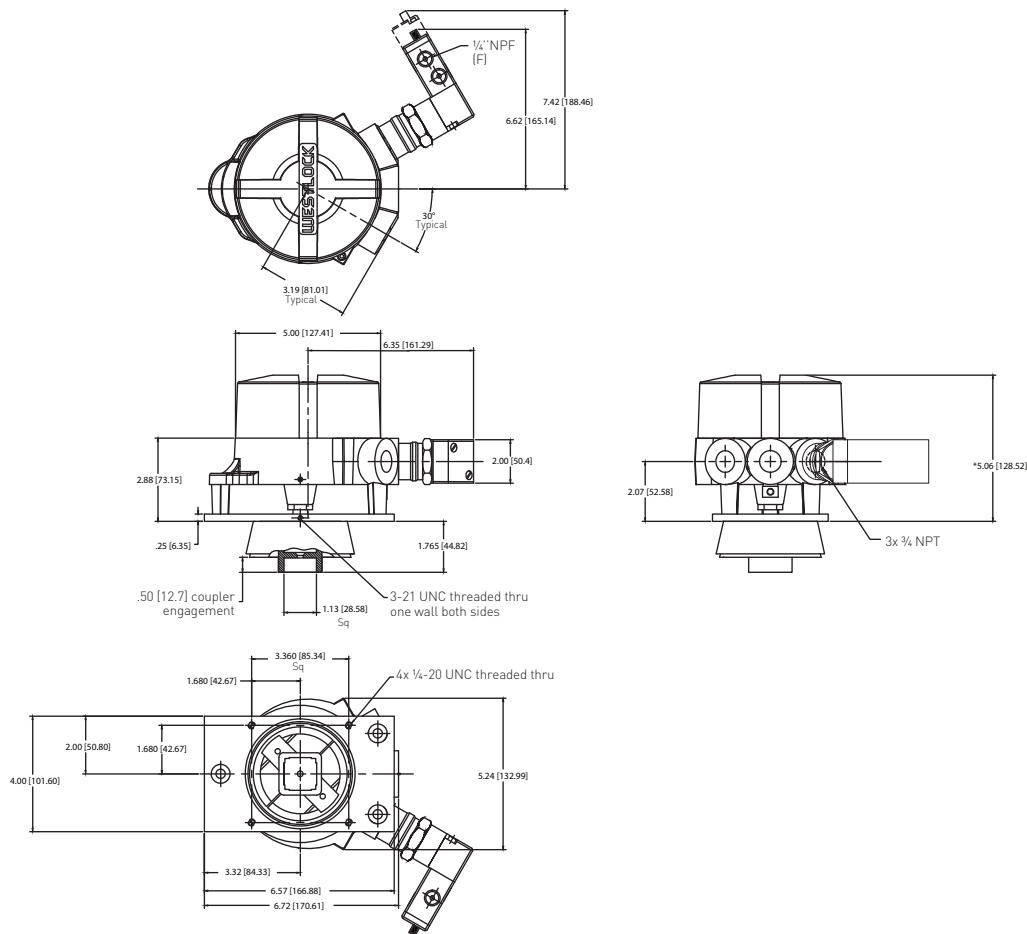
GENERAL APPLICATION

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.

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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

NOTES

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

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.

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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 ¾" NPT [F] or two ¾" NPT [F] with solenoid valve					
D470	Stainless steel enclosure with three ¾" NPT [F] or two ¾" 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 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		
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.