

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<sub>v</sub> 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
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##### Enclosure standards (ANSI/NEMA 250)

All models	Type 4, 4X, 6P
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#### Enclosure

D460	Aluminum
D470	Stainless steel

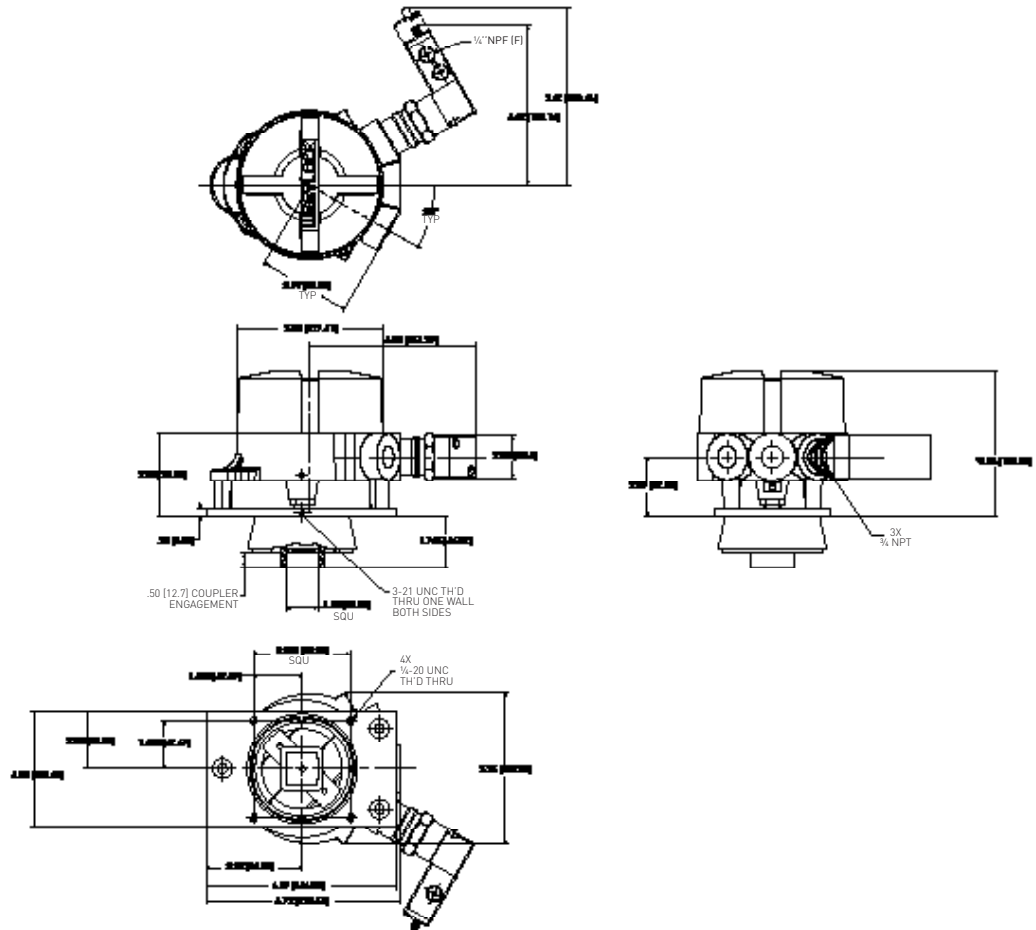
#### Falcon solenoid valves (single coil only)

C <sub>v</sub>	Choice of 0.5, 1.2, 3.5
Materials	Brass, aluminum and stainless steel

# Digital EPIC Control Transmitters

Explosionproof - NEC

## Dimensions models D460 and D470



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	
Model D460	Aluminum with powder coat finish
Model D470	Stainless steel with electropolished finish
Shaft and hardware	Stainless steel
Bushing	Oil impregnated bronze
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

Explosionproof - NEC

## Technical specifications

Conduit entries	3/4" 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.

# Digital EPIC Control Transmitters

## 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 valve body

- |    |                                      |    |                                      |
|----|--------------------------------------|----|--------------------------------------|
| 22 | 0.5 C <sub>v</sub> , 3-way, brass    | 26 | 0.5 C <sub>v</sub> , 4-way, brass    |
| 32 | 0.5 C <sub>v</sub> , 3-way, aluminum | 36 | 0.5 C <sub>v</sub> , 4-way, aluminum |
| 52 | 0.5 C <sub>v</sub> , 3-way, 316 SS   | 56 | 0.5 C <sub>v</sub> , 4-way, 316 SS   |
| 23 | 1.2 C <sub>v</sub> , 3-way, brass    | 27 | 1.2 C <sub>v</sub> , 4-way, brass    |
| 33 | 1.2 C <sub>v</sub> , 3-way, aluminum | 37 | 1.2 C <sub>v</sub> , 4-way, aluminum |
| 53 | 1.2 C <sub>v</sub> , 3-way, 316 SS   | 57 | 1.2 C <sub>v</sub> , 4-way, 316 SS   |
| 34 | 3.5 C <sub>v</sub> , 3-way, aluminum | 38 | 3.5 C <sub>v</sub> , 4-way, aluminum |
| 54 | 3.5 C <sub>v</sub> , 3-way, 316 SS   | 58 | 3.5 C <sub>v</sub> , 4-way, 316 SS   |
|    |                                      | 00 | None                                 |

### Special valve features

- 0 None
- V Non-venting [available in 1.2 C<sub>v</sub> only]
- I Non-venting, no indicator [available in 1.2 C<sub>v</sub> only]

### Override option

- 0 None
- M Momentary
- L Locking
- R No-voltage release, non-latching [available in 1.2 C<sub>v</sub> only]
- N No-voltage release, latching [available in 1.2 C<sub>v</sub> only]
- E External pilot

D470 LR 1 X 53 0 L = Model number **D470LR1X530L**

### 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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