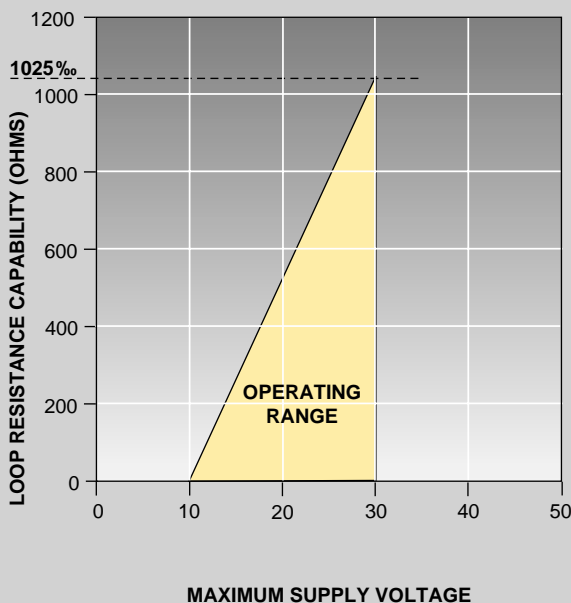




Non-Contact HART® Enabled Position Monitoring for Rotary Valves



Power Supply Requirements



EPIC™ HORNET

Non-Contact HART® Enabled Position Transmitter

The EPIC™ Position Transmitter is a “smart” device with microprocessor-based intelligence providing both 4-20 mA signal for position and digital communications via the HART® protocol. The Hornet’s design represents a significant departure from previous attempts to reliably measure the position of rotary control valves. As opposed to conventional devices, couplers are not utilized. A magnetic proximity module, attached to the actuator output shaft is the only “moving” part in the transmitter. Sensing is performed totally by non-contacting means, based upon characterization of flux strength as a function of axial position.

The ESD/PS option provides for a discrete output via the SIS to control an ESD solenoid with integrated

partial stroke test functionality; PS time, configurable PS stroke duration, time/date stamp of test and PS stroke alarm. PS test can be initiated via HART, external trigger zones or an internal push button.

Low current operation of the sensor is enabled through the use of new materials, which allows continuous operation rather than discrete sampling. Continuous operation permits high speed updating of the output current making it suitable for use in fast closed loop systems.

Accurate measurement of valve position provides the precision data required for the use of advanced control strategies and predictive maintenance algorithms.

TECHNICAL SPECIFICATIONS

Conduit Entries	3/4" NPT
Output	4 to 20 mA proportional to valve position
Terminal Voltage Req.	10 to 30 volts
Linearity	≤0.6% F.S.
Span Adjustment	60 to 120 degrees
Zero Adjustment	30% of calibration span
Resolution	≤0.05% F.S.
Hysteresis	Negligible
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 VDC to 30 VDC
Reverse Polarity	Protected
Mounting Attitude	Any Position
Startup Stabilization	.5 seconds

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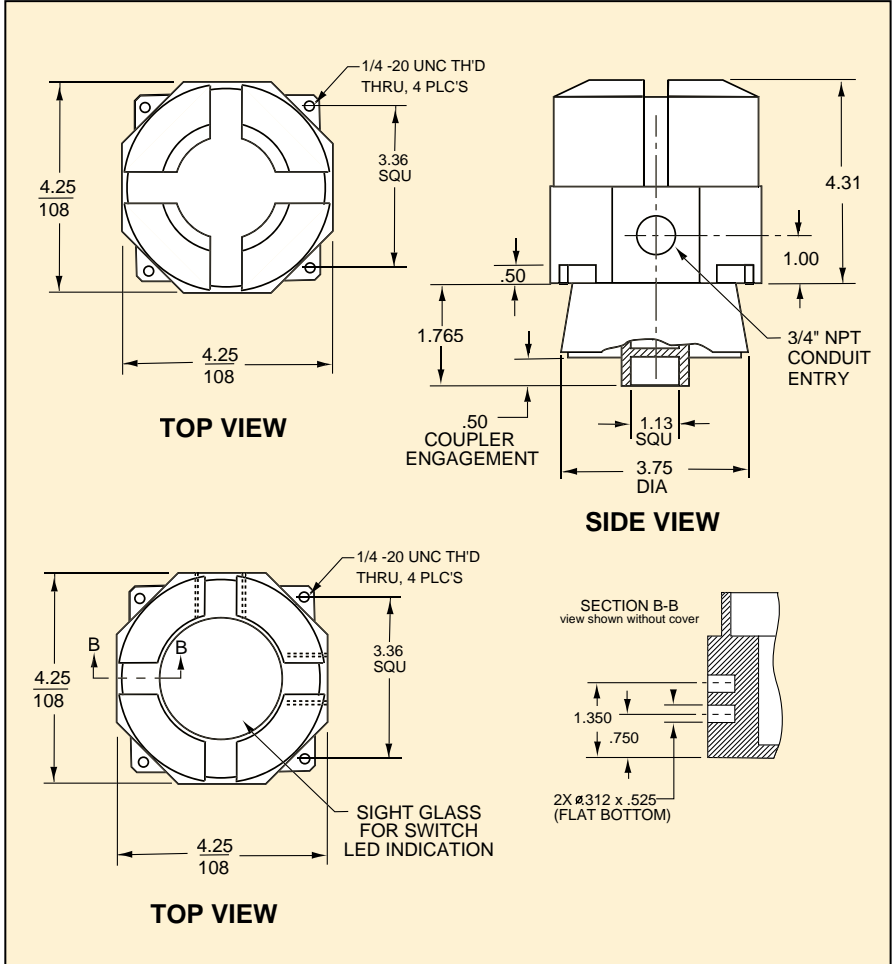
AREA CLASSIFICATIONS	
Class I, Groups B, C, D	
Class II, Groups E, F, G, Divisions 1 & 2	
Class I, Group A, Division 2	

MATERIALS OF CONSTRUCTION	
Housing	Cast Aluminum
Cover	Cast Aluminum

APPROVALS / CERTIFICATION	
FM	(Factory Mutual Research)
CSA	(Canadian Standards Association)



DIMENSIONS (inches/mm)



Ordering Example

D4 20-RO-X-3-0000-0-1-1

- Beacon Options "1" = Black/Yellow (for add. options refer to Price Book)
- Special Operation Options "0" = No Special Option, "1" = ESD/PST Relay Controller
- Solenoid Coil Options "0" = None
- Solenoid Override Options "0" = None
- Solenoid Valve Body "00" = No Solenoid
- Conduit Options "1" = 1/2" NPT, "2" = M20, "3" = 3/4" NPT, "6" = M25
- Area Class Option "X" = Explosion Proof (Class I, Div. 1, Grps B-D/Class I, Div. 2, Grps A-G)
- Valve Type Options "RO" = Rotary Valve, "RR" = Rotary Valve with Remote Option
- Enclosure Options "10" = Mod 3 - Standard Epic Enclosure with Site Glass
"20" = Mod 3 - Standard Epic Enclosure
- Product Code for Digital Epic **D4**