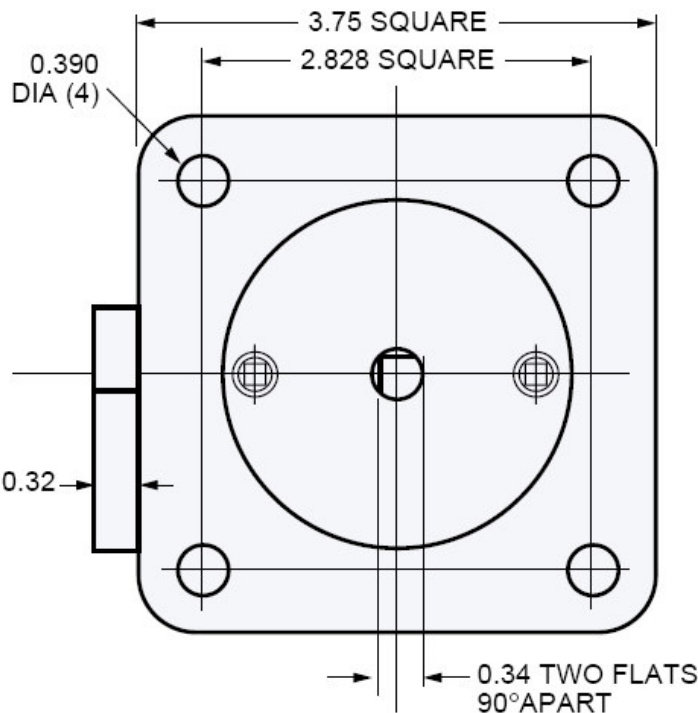
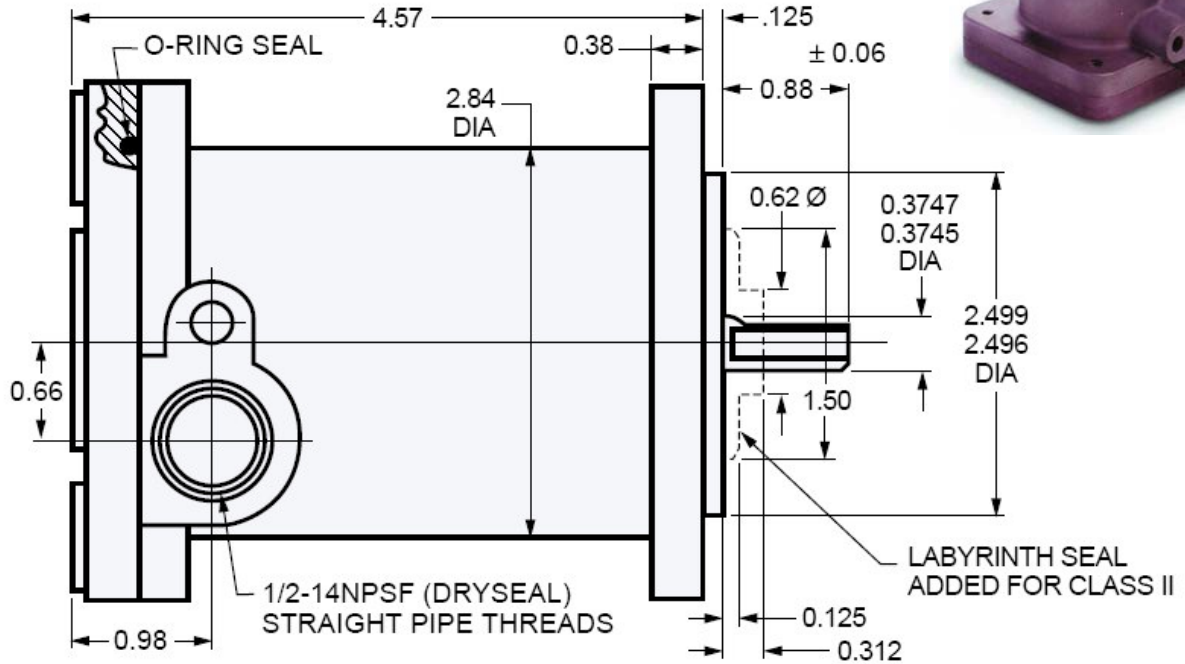


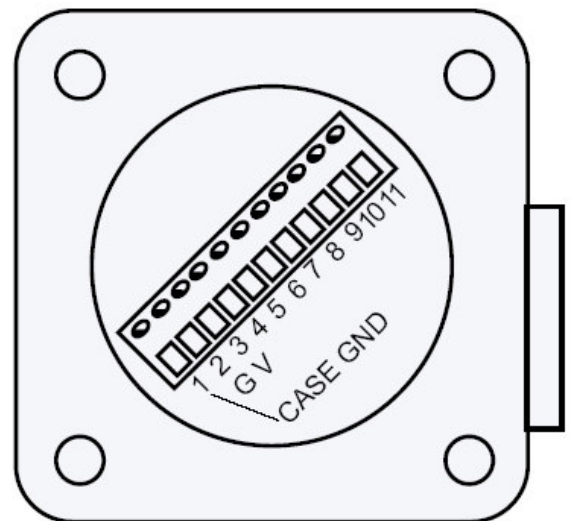
**INCREMENTAL ENCODERS, H38 RANGE**



The H38 is an explosion proof version of the field-proven H25 encoder series. The H38 is UL certified for NEMA Class 4X and 6 (outdoor non-hazardous locations) and Class 4X and 13 (indoor non-hazardous locations). It's also carries a Class 1, Group D, Division 1; and Class 2, Division 1 Group E, F and G rating for use in hazardous locations. It features a standard shaft seal, double bearing seals, and a cast aluminium housing with hard anodised and dichromate sealed finish. The H38 is suitable for use in petroleum service industries, solvent refining operations, spray painting applications, and explosive dust environments



Rear View



TOLERANCES: .XX = ± 0.01, .XXX = ± 0.005

## INCREMENTAL ENCODERS, H38 RANGE



### SPECIFICATIONS

<b>Shaft Diameter:</b> 3/8" nominal
<b>Flats On Shaft:</b> Two flats, 0.80" long x 0.30" deep at 90°C
<b>Shaft Loading:</b> Up to 40 pounds axial and 20 pounds radial Applied 1/4" from housing
<b>Shaft Runout:</b> 0.0005 T.I.R.
<b>Starting Torque at 25°C:</b> 4.0 in-oz (max)
<b>Bearings:</b> Class ABEC 7 standard
<b>Shaft Material:</b> 303 stainless steel
<b>Enclosure:</b> Die cast aluminium, hard anodized with dichromate sealed finish. Shaft seals and sealed bearings are standard to achieve environmental ratings
<b>Bearing Life:</b> 2 x 10 <sup>8</sup> revs (1300 hrs at 2500 RPM) at rated load 1 x 10 <sup>10</sup> revs (67,000 at 2500 RPM) at 10% of rated load
<b>Maximum RPM:</b> 10,000 RPM (see Frequency Response)
<b>Moment of inertia:</b> 4.1 x 10 <sup>-4</sup> oz-in-sec <sup>2</sup>
<b>Weight:</b> 64 oz typical (approx 4 lbs)

<b>Code:</b> Incremental
<b>Output Format:</b> 2 channels in quadrature, 1/2 cycle index gated with negative B channel
<b>Cycles per Shaft Turn:</b> 1 to 72,000 for resolutions above 3,600 see interpolations options
<b>Supply Voltage:</b> 5 to 24Vdc available
<b>Current requirements:</b> 100mA typical+output load, 250mA (max)
<b>Frequency Response:</b> 100kHz

<b>Protection Level:</b> Reverse overvoltage and output Short circuit
<b>Output Device:</b> 4469: Line Driver, 5-15Vdc, Vout = Vin 7272: Line Driver, 5-28Vdc, Vout = Vin 7272: Line Driver, 5-28Vdc, Vout = 5Vdc (special feature) 7273: Open collector, accepts 5 – 28Vdc
<b>Output Termination:</b> See Table 1
<b>Termination Type:</b> Compression Type, UL recognized. Accepts AWG 14 to 22, stranded wire, strip 1/4"
<b>Note:</b> Consult our factory for other electrical options

<b>Enclosure rating:</b> NEMA 4 X & 6 (IP66), outdoor Non-Hazardous locations, NEMA 4 x & 13 (IP 66), indoor Non-Hazardous locations
<b>Temperature:</b> Operating, 0° to 70°C; extended temperature testing available; storage; -25°C to 90°C unless extended temperature option called out
<b>Shock:</b> 50 g's at 11 msec
<b>Vibration:</b> 5 to 2000Hz @ 20 g's
<b>Humidity:</b> 100%RH
<b>Hazardous Area Rating:</b> Underwriters Laboratories Listed for use in hazardous locations; NEMA Enclosure 7. Class 1, Group D, Division 1, NEC Class 2 circuits only Or Class 2, Group E, F, and G

### OUTPUT FUNCTION – TABLE 1

TERMINAL PIN	INCREMENTAL OUTPUT
1	CASE GRND
2	GROUND
3	+ V
4	A
5	B
6	Z
7	A/
8	B/
9	Z/
10	SPARE
11	SPARE

	EN55011 EN 61000-6-2
	CENELEC EEX ia IIB T5
	U.S. Standards Class I, Group D, Division 1; Class II, Group E,F,G Requires labyrinth seal
	Canadian Standards Class I, Division 1, Group D; Class II, Group E,F&G requires
	CSA Class I Div 1, Group C & D

### ORDERING REFERENCE (Interpolation option available: x2, x4, x5, x10, x20 consult us , Special features: consult us)

Type	Housing	PPR	Channels		Output IC	Output termination	UL
<b>H38</b>  H = Heavy duty  38 = 3.75" Square	<b>D</b> = square flange	Cycles per Turn  Max <b>72 000</b>	<b>A</b> = single channel <b>AB</b> = Dual quad <b>ABZ</b> = Dual with index <b>AZ</b> = single with index	<b>C</b> = complementary output  <b>Blank</b> = None	<b>4469</b> : voltage line driver 100mA, 5 to 15Vdc <b>7272</b> : multi-voltage line -driver 100mA, 5 to 24Vdc <b>7273</b> : Open collector current sink of 80mA	<b>SC</b> = Side Conduit, 1/2-14 NPSF (dryseal) straight pipe threads	<b>UL</b> = Class I environments  <b>UL2</b> = Class I & II environments
<b>Ex: H25</b>	<b>D</b>	<b>2000</b>	<b>ABZ</b>	<b>C</b>	<b>4469</b>	<b>SC</b>	<b>UL2</b>