

1. Introduction

The Mini Encoder is a compact 1.5" incremental optical encoder, the world's smallest Nema 4 heavy duty encoder.

Some of the features and options offered with this encoder include:

- 720 counts/rev Resolution
- Aluminum or Stainless Steel housing
- Dual row bearing with shaft seal
- 1/4 " Stainless Steel Shaft
- 15 lb. Axial/Radial shaft load
- Servo /Face mount
- NEMA 4/4X Hosedown construction
- 10-30VDC Power ET7272 Line drive
- Short circuit proof outputs
- NEMA 4 cable fitting

2. Specifications

ELECTRICAL

INPUT

Voltage: 10-30 VDC
 Current: 100 mA @ 24VDC exclusive of load
 High Voltage: Min. 2.4 VDC TTL Compatible
 Low Voltage: Max. 0.4 VDC TTL Compatible

PROTECTION

Reverse Voltage Protected Inputs
 Short Circuit Protected Outputs

POWER-ON SETTling TIME

Upon power-up the outputs are tri-stated for up to 100mSec.

ENVIRONMENTAL

Housing	Size 15 (1.5" dia.)
Max. Starting Torque @ 25 °C (oz. in.)	2
Moment of Inertia (oz*in ²)	2 x 10 ⁻⁴
Max. Slew Speed (RPM)	5000
Shaft Size	1/4"
Max. Shaft Loading Axial and Radial:	15 lb.
Bearing Life at Max. Mfr. Spec.	2 x 10 ⁹
Shock	100g for 11ms
Vibration	20g to 2000Hz
Enclosure	NEMA 4/IP 66
Operating Temperature	-10°C to 70°C
Storage Temperature	-40°C to 85°C

OUTPUT FORMAT:

Incremental
 Up to 720 Pulses Per Rev.

OUTPUT DRIVERS

Line driver device: ET7272
 Voltage: 30V/V = 18-30VDC ($V_{in} = V_{out}$)
 30V/5= 5VDC
 Max Output Current: 40mA
 High Voltage: Vcc -0.5V@ 20mA source current
 Low Voltage: 0.5 V@ 20mA sink current

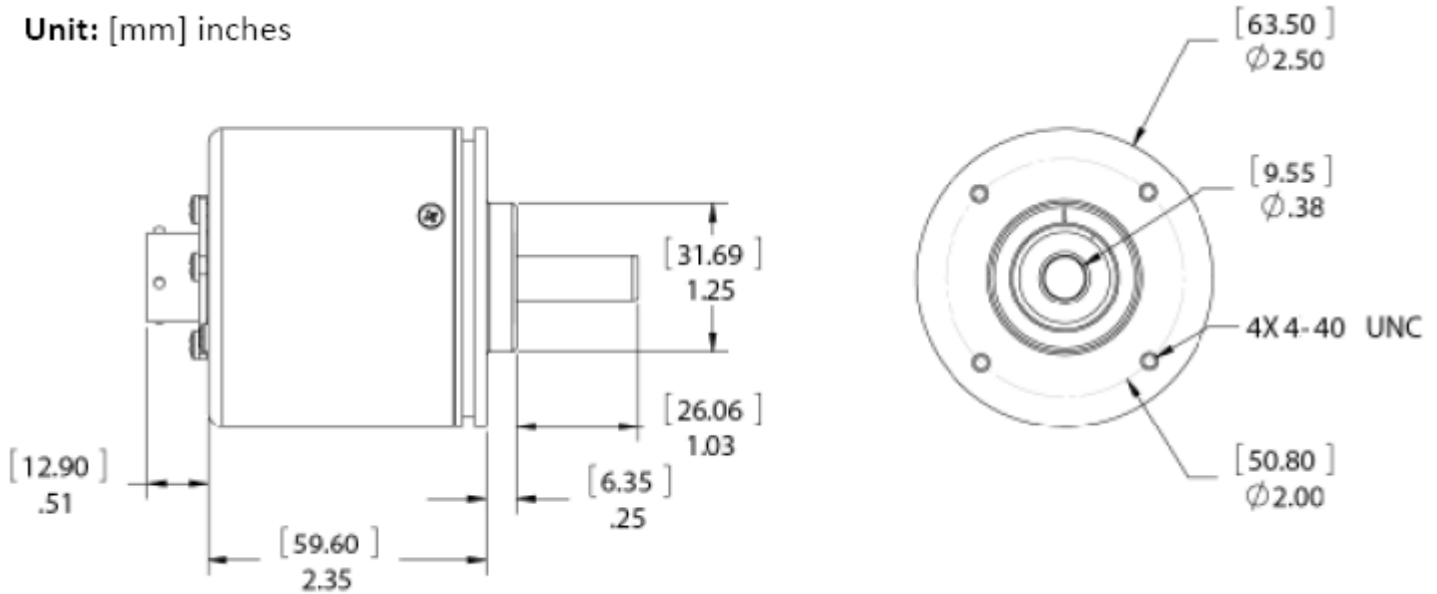
WIRING

COLOR	6 Conductor Cable	4 Conductor Cable
Brown	Signal A	Signal A
White	Signal A'	-
Blue	Signal B	Signal B
Green	Signal B'	-
Red	Vcc	Vcc
Black	GND	GND

The shielded interconnecting cable should be routed in its own conduit and kept separate from other high voltages/high inductance wiring. The shield drain wire should be connected to earth ground at both ends of cable.

3. Mounting

Unit: [mm] inches



5. How to Order

A15 – XXXX – XX – XX – XXX – XXX
1 2 3 4 5

1. Input Power/ Output Driver (ET7272)

- 30V/V** 10-30Vin , Vin=Vout
- 30V/5** 10-30Vin , Vout =5V (TTL compatible)

3. Construction/ Housing

- C4** 4 Conductor Shielded
- C6** 6 Conductor Shielded

2. Construction/ Housing

- AL** Aluminum
- SS** Stainless Steel, Water Submersible

4. Cable Length: (in ft)

- 1.5 005 010 020 030 050 100**

5. PPR

- 100, 250, 360, 500, 720**

P/N example: A15 – 30V5-AL-C6-003-250

(1.5" Diameter Encoder, 5V Output Voltage, Aluminum Housing, 3 feet long, 6 conductor cable, 250 PPR)