



**PART NUMBER:** MEH85

**DESCRIPTION:** incremental encoder

**ELECTRICAL SPECIFICATIONS**

|                         |  |
|-------------------------|--|
| output waveform         | Square wave  |
| output signals          | A, B, Z phase  |
| current consumption     | ≤60 mA   |
| frequency response      | 0~100 KHz  |
| output phase difference | A, B phase difference 90° ± 45°<br>(T/4±T/8) Z phase T±T/2 (see output waveform)                         |
| supply voltage          | 5 V dc ±10% (line driver output only), 5 V ~ 12 Vdc ± 10% ,<br>24 Vdc ± 10% (open collector output only) |
| output resolution (ppr) | 200, 500, 1000, 1024, 3600, 4500, 5400, 7200, 10800, 11250, 18000,<br>20250, 21600                       |
| waveform rise/fall time | 2μ or less (output cable 1m or less)   |

**MECHANICAL SPECIFICATIONS**

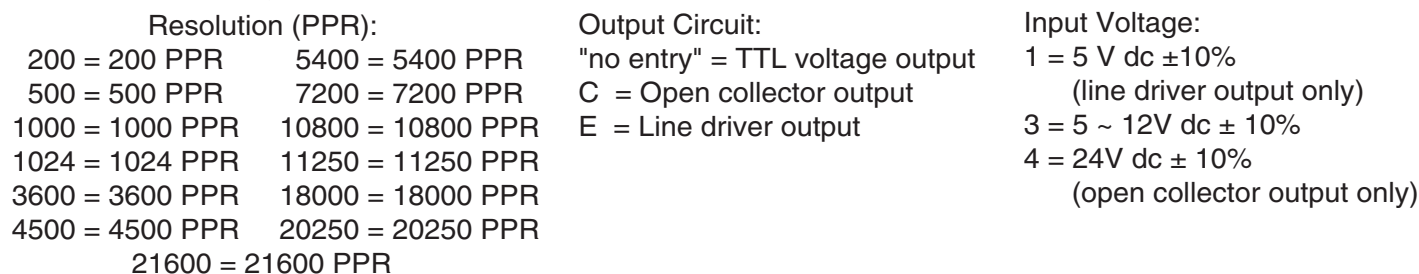
|                         |   |
|-------------------------|---|
| max shaft load, radial: | 9.8N (1kgf)   |
| axial:                  | 4.7N (0.5kgf)   |
| starting torque         | 40 x 10 <sup>-3</sup> N·m (400 gf·cm) (no oil seal)                   |
| max rotational speed    | 1000 RPM  |
| shock resistance        | 500 m/s <sup>2</sup> (50G), 3 times each on XYZ                       |
| vibration proof         | 55 Hz, double amplitude 1.5mm, 2 hours each on XYZ                    |
| weight                  | 520g (with 1m cable)  |
| cable                   | 4.2mm outside diameter, 5 core vinyl wire insulated shield cable (1m) |

**ENVIRONMENTAL SPECIFICATIONS**

|                |                           |
|----------------|---------------------------|
| operating temp | 0° to +60° C              |
| storage temp   | -20° to +80° C            |
| humidity       | RH 35%~90% non collecting |

**ORDERING INSTRUCTIONS**

**MEH85 - XXXXX - XX**

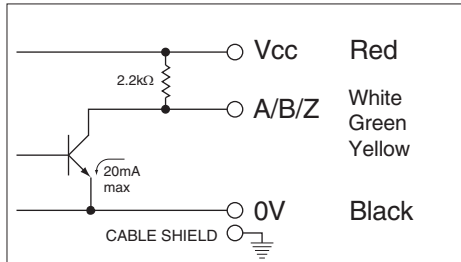


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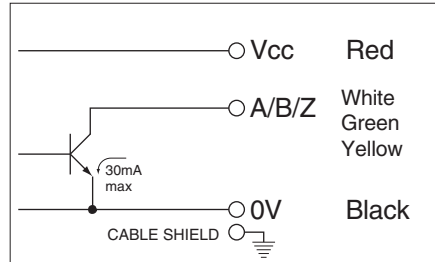
**DESCRIPTION:** incremental encoder

**CIRCUIT CONNECTIONS**

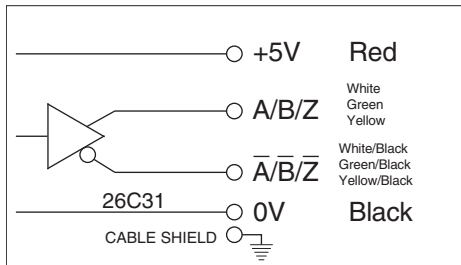
Voltage Output



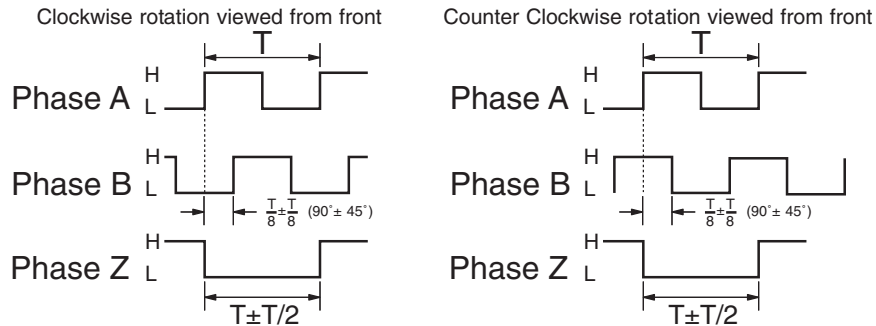
Open Collector Output (C)



Line Drive Output (E)

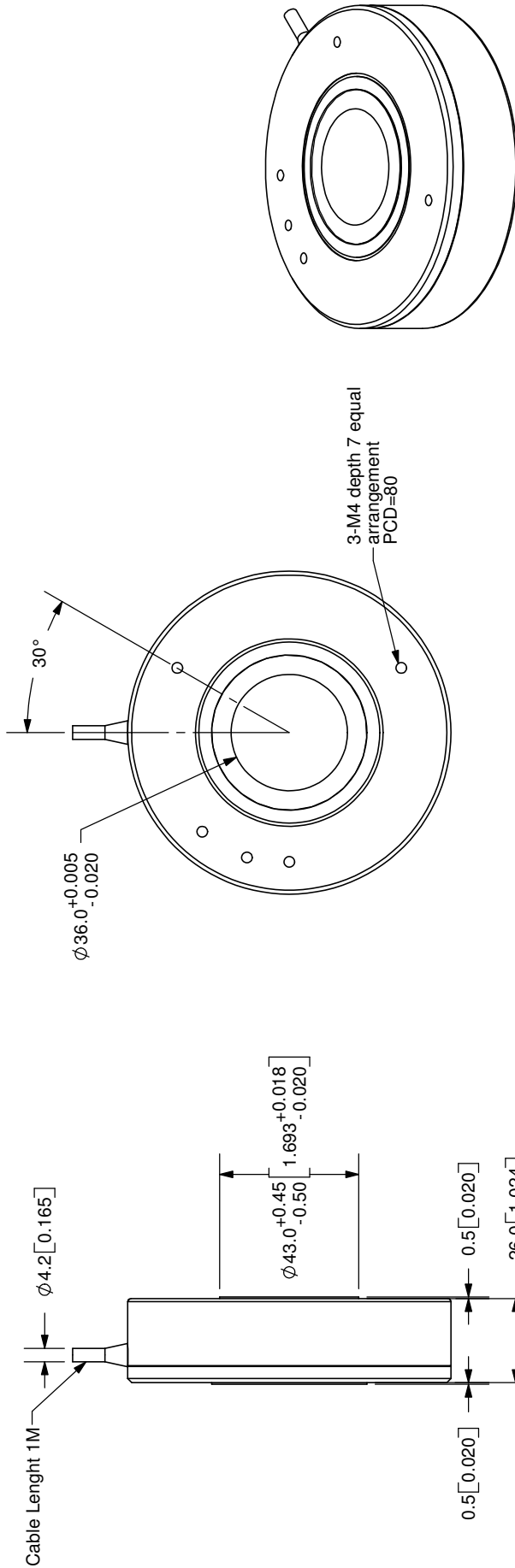


**OUTPUT WAVEFORM**



The position of Z phase against A, B phase is not specified

|      |             |           |
|------|-------------|-----------|
| REV. | DESCRIPTION | DATE      |
| A    | NEW DRAWING | 7/30/2007 |



TOLERANCE:  
±0.3mm UNLESS OTHERWISE  
SPECIFIED

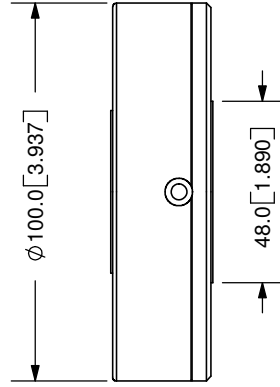


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TITLE: Incremental Encoder REV: A

PART NO: MEH85 UNITS: MM [INCHES]

DRAWN BY: JMS APPROVED BY: SCALE: 1:2



|               |             |                            |               |               |                |          |   |   |   |   |
|---------------|-------------|----------------------------|---------------|---------------|----------------|----------|---|---|---|---|
| PC FILE NAME: | MEH85       | COPYRIGHT 2007 BY CUI INC. |               |               |                |          |   |   |   |   |
| Cable Color   | Output Type | Red Power                  | White A-Phase | Green B-Phase | Yellow Z-Phase | Black 0V | - | - | - | - |