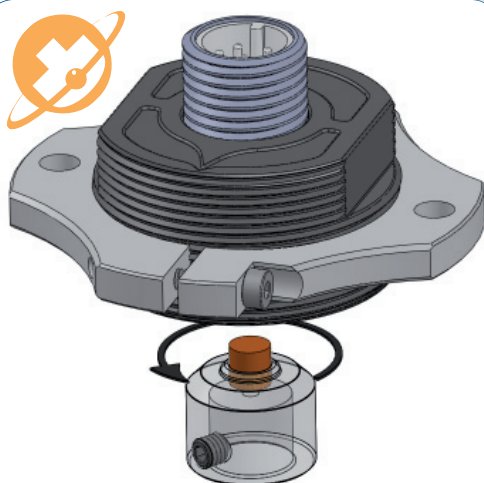


Model 30MT - Threaded Incremental Encoder Module



Ø30 mm

Features

- Large Air Gap and Tolerance to Misalignment
- Up to 1024 PPR (4096 With Quadrature Counting)
- Temperature Range -40°C to 120°C
- Sealing Options to IP69K
- Easy Alignment and Installation

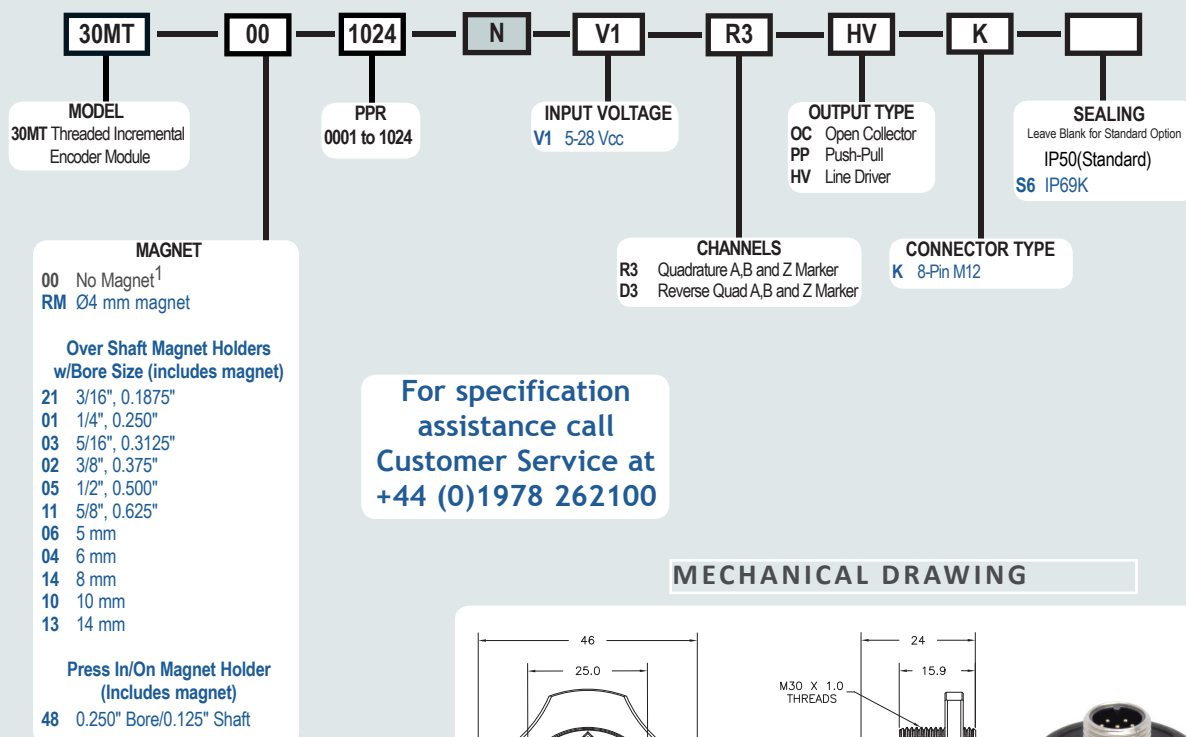
New from British Encoder Products Company, the Model 30MT is a compact, modular incremental encoder with advanced magnetic sensing and signal processing technology. With built in alignment feature, the threaded housing allows for quick, accurate air-gap setting. Featuring resolutions up to 1024 PPR, several output types and a wide range for supply voltage, it can be configured for a variety of industrial, commercial and consumer feedback applications. The non-contact magnetic sensor and optional sealing up to IP69K allows the Model 30MT to be applied to environments where dirt, dust and liquids are present.

COMMON APPLICATIONS

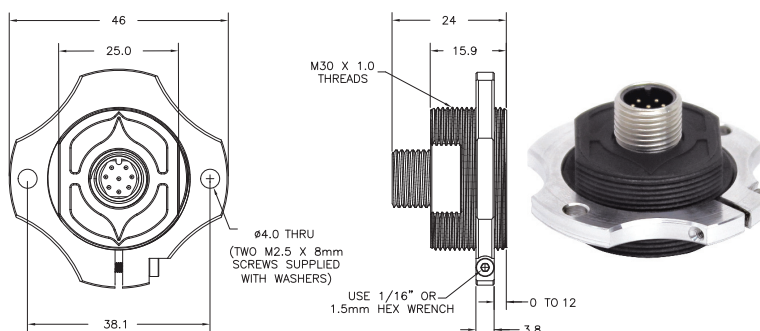
Motor feedback, Mobile equipment speed and steering sensing, Timber processing machinery, Studio lighting and stage equipment control, Rotary valve position monitoring and control, Solar panel positioning, Vending machines, Punch presses, Tank level monitoring, Robotics

Model 30MT Ordering Guide

Blue type indicates price adder options. Not all configuration combinations may be available. Contact Customer Service for details.



MECHANICAL DRAWING



NOTES:

- 1 A high quality magnet is required to generate a reliable signal; magnet options provided by BEPC have been pre-qualified to provide a clear and reliable signal.

Model 30MT - Threaded Incremental Encoder Module



Model 30MT Specifications

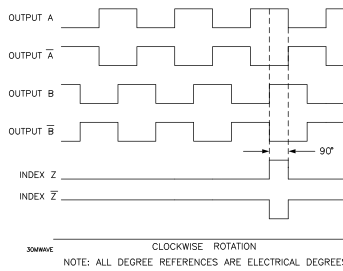
ELECTRICAL

Input Voltage	4.5 to 28 Vcc (4.5 to 20 Vcc over 105°C)
Input Current	80 mA max, 50 mA or less typical with no output load
Output Format	Two square waves in quadrature with channel A leading B for clockwise magnet rotation as viewed from the encoder mounting face. Index gated to A and B.
Output Types	Open Collector Open Collector with Differential Outputs Differential Line Driver (Meets RS422 at 5 Vcc) Push-Pull All outputs 20 mA max per channel
Electrical Protection	Reverse voltage and output short circuit protected
Max Frequency	350 kHz
Min Edge Sep	20° electrical min, 50° electrical typical
Accuracy	Typically within $\pm 0.7^\circ$ mechanical from true position. Accuracy improves at nominal air gap with minimized magnet runout, offset and endplay.

MECHANICAL/ENVIRONMENTAL

Air Gap	0.56mm nominal recommended
User Shaft Tolerances	
Axial Endplay	± 0.50 mm max
Radial Runout	0.20mm max
Axial Offset	0.20mm max
Mounting Bolts	Two M2.5 x 8mm screws & washers provided
Housing Material	High Temp, Toughened Nylon Composite
Weight	14.17 Grams typical or less
Humidity	98% RH non-condensing
Vibration	20 g @ 10 to 2000 Hz (MIL-STD-202G Method 204D)
Shock	100 g @ 11 ms duration (MIL-STD-202G Method 213B)
Sealing	IP50 standard; IP69K available

Waveform Diagram and Wiring Table



Function	8-pin M12
0 Volts	7
+ Vcc	2
A	1
A'	3
B	4
B'	5
Z	6
Z'	8

WIRING TABLE

For BEPC-supplied mating cables, refer to wiring table provided with cable.

Universal Mounting Adaptor : stock #176672

Provides the following mounting patterns, 2x @ 180°

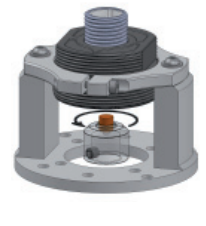
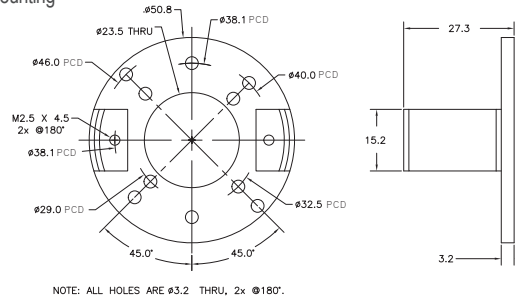
Ø29.0 PCD

Ø32.5 PCD

Ø38.1 PCD

Ø40.0 PCD

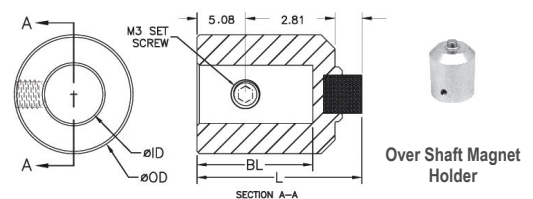
Ø46.0 PCD



Over Shaft Magnet Holders

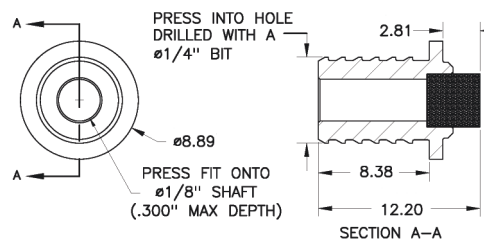
STOCK #	Ø ID	Ø OD	BL	L
176596-01	3/16"	9.27	9.525	14.73
176597-01	5mm	9.27	9.525	14.73
176598-01	6mm	12.44	9.525	14.73
176599-01	1/4"	12.44	9.525	14.73
176600-01	5/16"	12.44	12.06	17.27
176601-01	8mm	12.44	12.06	17.27
176602-01	3/8"	15.62	12.06	17.27
176603-01	10mm	15.62	12.06	17.27
176604-01	1/2"	18.79	19.05	24.25
176605-01	14mm	18.79	19.05	24.25
176606-01	5/8"	21.97	19.05	24.25

OD, BL and L all in mm



Over Shaft Magnet Holder

Press In / On Magnet Holder: stock #176607-01



Press In/On Magnet Holder

All dimensions are in mm with a tolerance of ± 0.127 mm or ± 0.254 unless otherwise specified

Mating Cables / Cordsets

M12 Mating Cordsets	
Stock #	Description
075100	8-Pin M12 Mating Cordset, 0.5 Meters
075101	8-Pin M12 Mating Cordset, 2 Meters
075102	8-Pin M12 Mating Cordset, 4 Meters
075103	8-Pin M12 Mating Cordset, 6 Meters
075104	8-Pin M12 Mating Cordset, 10 Meters