

Encoders

Dynapar ™ brand

Series M14 Miniature Encoder

- Ideal economical feedback device for servo and stepper motors
- Short axial length and compact 1.5 inch diameter
- Easy "snap-on" installation
- High resolution to 1024 lines/rev and 200 kHz bandwidth
- Drop-in replacement for HP 5540
- CE Qualified

DESCRIPTION

reliability and accuracy.

CMOS compatible signals.

APPLICATION/INDUSTRY

The M14 optical encoder utilizes a

encoder electronics, including the

patent-pending ASIC that integrates all

optoelectronic sensors, which enhances

The M14 series of incremental optical encoders provides high performance feedback for precision motion control in a small, low cost package. Its high performance, advanced features, and competitive pricing make it the encoder of choice for a broad range of applications.

SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code:Incremental, Optical Resolution: Incremental pulses per revolution; 200 to 1024 Phasing: 90° ±18° electrical Symmetry: 180° ±18° electrical Index Pulse Width: 90° ±36° electrical

ELECTRICAL

Supply Voltage: 5 VDC \pm 10% Supply Current: 10 mA, typ. Output Signals: 2.5 V min. high (V_{Or}); 0.5 V max. low (V_{Ot}). 6 mA sink/source (25°C), 4 mA (100°C) Frequency Response: 200 kHz Termination: 5 pin connector (accessory connector w/12" wires, part no. CA0060012) Recommended Mating Connector: Amp Part Number 103969-4



MECHANICAL

Weight: 0.22 oz (6.2 g) Moment of Inertia: 0.16 x 10⁻⁵ oz-in-sec² (0.13 gm-cm²) Hub Bore: 3.0, to 8.0 mm; 0.125, to 0.375 inch Hub Dia. Tolerance: +0.0004"/-0.0000" (+0.010 mm/-0.000 mm) Mating Shaft Length: 0.525" (13.3 mm) max.; 0.436" (11.07 mm) min. Mating Shaft Runout: 0.001 TIR Mating Shaft Runout: 0.001 TIR Mating Shaft Endplay:>512 ppr: ±0.003" (±0.076mm); 500, 512 ppr: ±0.005/-0.003" (+0.127/-0.076mm); <500 ppr: +0.007/ -0.003" (+0.178/-0.076mm)

ENVIRONMENTAL

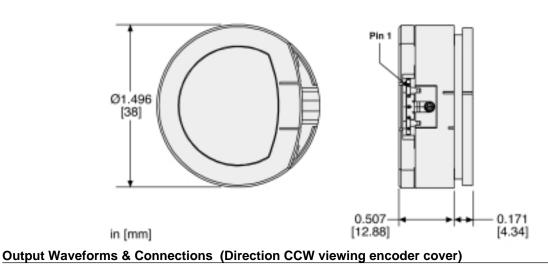
Operating Temperature:40° to 100°C Storage Temperature:-50° to 125°C Relative Humidity: 90% non-condensing

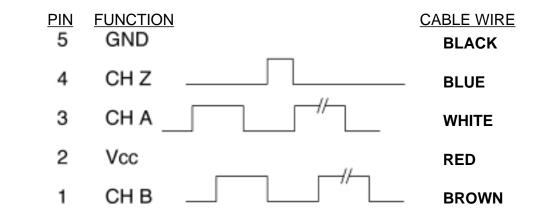
Quadrature A and B channels with up to 1024 lines per revolution and reference pulse are output as single-ended TTL/



Series M14 Miniature Encoder

Dimensions/Installation





Ordering Information

To order, complete the model number with code numbers from the table below:

M14			Mounting Description	Code 4: Hub Bor	e Description		
		Ordering					
M14 1.5" Diameter		Ordoring					
M14 1.5" Diameter		Ordering Information					
Modular Encoder	0200/0 0400/0 0500/0 0512/0 1000/0 1024/0	A S	No mounting base 2x #2-56 on1.28" BC 3x #0-80 on 0.823" BC 2x #2-56 on 0.75" BC	3.0 4.0 5.0 6.0 8.0 125 187 249 250 312 374 375	3.0 mm 4.0 mm 5.0 mm 6.0 mm 0.1248 in 0.1873 in 0.2498 in 0.2498 in 0.2501 in 0.3123 in 0.3748 in 0.3750 in		
IMPORTANT: To properly install Series M14, a specialized mounting kit must be purchased. Only one kit is required to install any number of encoders with the same hub bore size. Kit Part Number: MK M14 Code 4 (from Models Table, above) designating							

Example: Kit for installing encoders with 0.1248" hub Bore= MK M14 125