

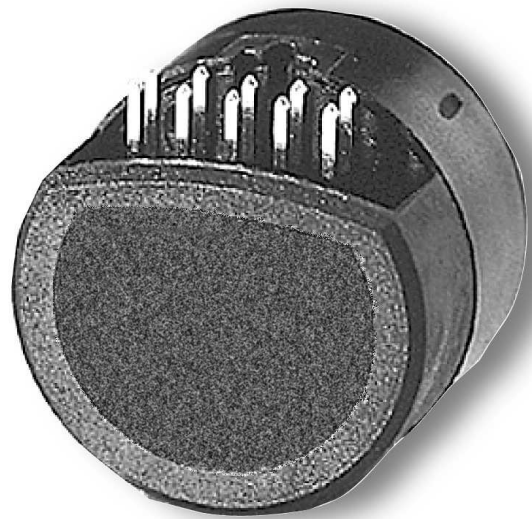
SERIES E9

Dynapar™ brand

Miniature Encoder

Key Features

- Super-Compact Modular Encoder for Small Servo and Stepper Motor Feedback
- Integrated ASIC for Enhanced Reliability and Accuracy
- Up to 512 PPR Resolution



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental, Optical

Resolution: Incremental pulses per revolution; 100 to 512

Phasing: 90° ±18° electrical

Symmetry: 180° ±18° electrical

Index Pulse Width: 90° ±36° electrical

ELECTRICAL

Supply Voltage: 5 VDC ±10%

Supply Current: 10 mA, typ.

Output Signals: 2.5 V min. high (V_{OH}); 0.5 V max. low (V_{OL}), 6 mA sink/source (25°C), 4 mA (100°C)

Frequency Response: 200 kHz

Termination: 5 pin header (accessory 12" wires w/connector, part no. CA0050012) or flying leads

Recommended Mating Connector: AMP part number 103675-4

MECHANICAL

Weight: 0.15 oz (4.14 g)

Moment of Inertia: 0.15×10^{-5} oz-in-sec² (0.11 gm-cm²)

Hub Bore: 1.5, 2.0, 2.5, 3.0, 4.0 mm; 0.125, 0.156 inch

Hub Dia. Tolerance: +0.0004"/-0.0000" (+0.010 mm/-0.000 mm)

Mating Shaft Length: See table

Mating Shaft Runout: 0.001 TIR

Mating Shaft Endplay: >256 ppr: ±0.003" (±0.076mm); 250, 256 ppr: +0.005/-0.003" (+0.127/-0.076mm); <250 ppr: +0.007/-0.003" (+0.178/-0.076mm)

ENVIRONMENTAL

Operating Temperature: -20° to 100°C

Storage Temperature: -50° to 125°C

Relative Humidity: 90% non-condensing

OUTPUT WAVEFORMS & CONNECTIONS

Code 4= 00

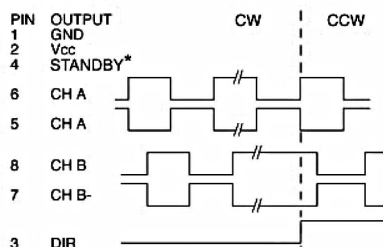


Figure 1

Code 4= 01

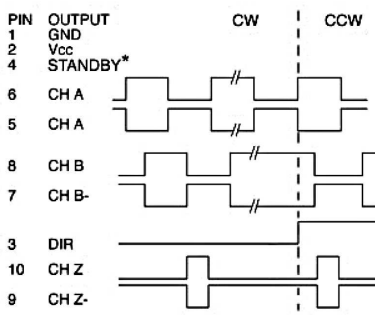


Figure 2

Code 4= 02

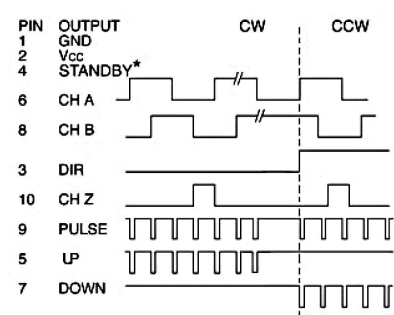
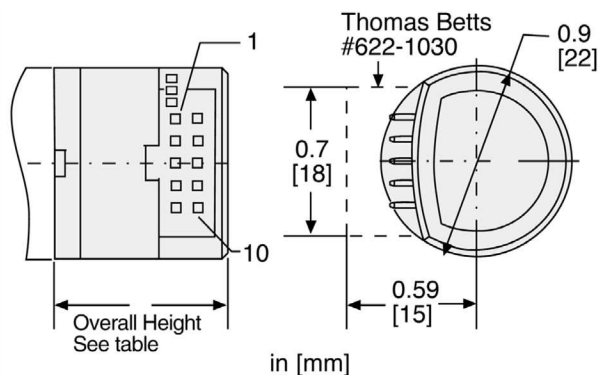


Figure 3

* For operation, connect STANDBY (4) to Vcc (2)

DIMENSIONS/INSTALLATION



IMPORTANT: To properly install Series E9, 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 E9



Code 3 (from Models Table, above)
designating Hub Bore requirement.

Example: Kit for installing encoders with 3.0 mm hub Bore= **MK E9 3.0**

Base (Code 3)	Overall Height inch (MM)	Motor Shaft Length inch (MM)	
		Max.	Min
A	0.795 (20.20)	0.479 (12.16)	0.467 (11.86)
C, D, E	0.929 (23.60)	0.613 (15.56)	0.581 (14.76)

Bases C and D provide clearance for motor-bosses with maximum dimensions of 0.5 in. Dia. x 0.15 in. high. Base E provides clearance for motor-bosses with maximum dimensions of 1.0 in. x 0.15 in. high

ORDERING INFORMATION

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

Code 1: Model	Code 2: PPR	Code 3: Hub Bore	Description	Code 4: Output	Description	Code 5: Mounting	Description
E9	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Ordering Information							
E9	0.9" Diameter Incremental Modular Encoder	0100	2.0 2.0 mm	00 See Figure 1 01 See Figure 2 02 See Figure 3		0	No mounting base
		0144	2.5 2.5 mm			A	4x M1.6 on 0.728" BC
		0200	3.0 3.0 mm			C	2x #2-56 on 0.75" BC
		0500	4.0 4.0 mm			D	3x #0-80 on 0.823" BC
		0512	125 0.125 in			E	2x #2-56 on 1.812" BC
		156 0.156 in					
	Special Order Consult Factory for Lead Time & Price	Special Order Consult Factory for Lead Time & Price					
	0256						
	0300						
	0360						



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DYNAPAR
INNOVATION - CUSTOMIZATION - DELIVERY

WWW.DYNAPAR.COM

Headquarters: 1675 Delany Road • Gurnee, IL 60031-1282 • USA

Customer Service:

Tel.: +1.800.873.8731

Fax: +1.847.662.4150

custserv@dynapar.com

Technical Support

Tel.: +1.800.234.8731

Fax: +1.847.662.4150

dynapar.techsupport@dynapar.com

European Sales Representative

Hengstler GmbH
Uhlandstrasse 49, 78554 Aldingen
Germany
www.hengstler.com

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