SERIES E23

Dynapar™ brand

Miniature Encoder

Key Features

- **Up to 2540PPR with Optional Index**
- **Optional Screw Terminal Connections**
- **Standard Size 23 (2.3” diameter)**

RoHS

SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental

Resolution: 1 to 2540 PPR (pulses/revolution)

Accuracy: (Worst case any edge to any other edge) ±2.5 arc-min.

Format: Two channel quadrature (AB) with optional Index (Z) outputs

Phase Sense: A leads B for CW or CCW shaft rotation as viewed from the shaft end of the encoder, see Ordering Information

Quadrature Phasing: 90° ± 18° electrical

Symmetry: 180° ± 9° electrical

Index: 180° ± 9° electrical, gated with B

Waveforms: Squarewave with rise and fall times less than 1 microsecond into a load capacitance of 1000 pf

ELECTRICAL

Input Power:
Open Collector or Totem Pole outputs: 4.5 VDC min. to 26 VDC max. at 200 mA max.;
Line Driver: 4.5 VDC min. to 26 VDC max. at 80 mA max.

Outputs:
Open Collector 7273:
V_{OH}: 30 V max.; V_{OL}: 0.4 V max. at 20 mA sink
Totem Pole, Line Driver 7272:
40 mA min. sink or source
4469 Differential Line Driver: 100 mA, sink or source

Frequency Response: 100 kHz min.

MECHANICAL

Shaft Loading: 5 lbs. max. radial and axial

Shaft Speed: 5,000 RPM max.

Starting Torque: 0.2 oz-in max. at 25 °C

Moment of Inertia: 3.7 x 10^{-4} oz–in–sec^2

Weight: 13 oz. max.

ENVIRONMENTAL

Operating Temperature: 0 to +70 °C

Storage Temperature: –40 to +80 °C

Humidity: to 98% without condensation

Shock: 50 G’s for 11 msec duration

Vibration: 5 to 2000 Hz at 2 G’s

Enclosure Rating: NEMA12/IP54 (dirt tight, splashproof)

ELECTRICAL CONNECTIONS

Note: Wire color codes are referenced here for models that are specified with pre-wired cable.

Single Ended		
Term.	Function (If Used)	Wire Color Code
A	Signal A	BRN
B	Signal B	ORN
C	Signal Z	YEL
D	Power Source	RED
E	No Connection	—
F	Common	BLK
G	Case	GRN

Differential		
Term.	Function (If Used)	Wire Color Code
A	Signal A	BRN
B	Signal B	ORN
C	Signal Z	YEL
D	Power Source	RED
E	No Connection	—
F	Common	BLK
G	Case	GRN
H	Signal $\bar{A}$	BRN/WH
I	Signal $\bar{B}$	ORN/WH
J	Signal $\bar{Z}$	YEL/WH

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Ordering Information

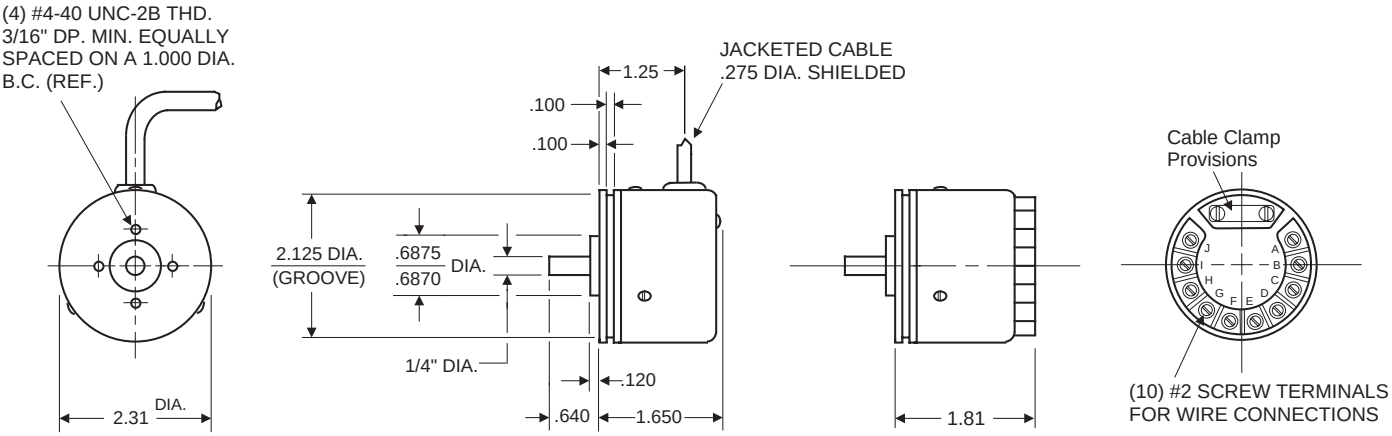
To order, complete the model number with code numbers from the table below:

Code 1: Model	Code 2: Pulses/Rev	Code 3: Mechanical	Code 4: Output	Code 5: Electrical	Code 6: Termination
E23	□□□□	□	□	□	□
E23 Size 23 Enclosed	**0001** **0300** **1024** **0005** **0344** **1200** **0010** **0360** **1250** **0012** **0400** **1270** **0050** **0500** **1500** **0060** **0512** **1600** **0100** **0600** **1800** **0120** **0625** **1968** **0150** **0635** **2000** **0180** **0720** **2048** **0200** **0800** **2400** **0240** **0900** **2500** **0250** **1000** **2540** **0256** For Resolutions above 2540, see Series EC23	**0** 1/4" Shaft, Shielded Bearings **1** 1/4" Shaft, Sealed Bearings	**4** Single Ended, with Index, Format C **5** Differential, with Index, Format C **6** Single Ended, with Index, Format D **7** Differential, with Index, Format D **8** Single Ended, no Index, Format C **9** Differential, no Index, Format C	**0** 5-26V in; 5-26V Open Collector w/2.2kΩ Pullup out **1** 5-26V in; 5-26V Open Collector out **2** 5-26V in; 5V TTL Totem Pole out **3** 5-26V in; 5V Line Driver out (7272) **4** 5-26V in; 5-26V Line Driver out (7272) **5** 5-26V in, 5V Differential Line Driver out (4469) **6** 5-15V in, 5-15V Differential Line Driver out (4469)	**0** 18" Cable **1** 3' Cable **2** 6' Cable **3** 10' Cable **4** 15' Cable **8** Screw Terminals

Dimensions (inches/mm)

Code 6: Termination

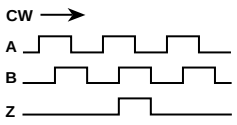
0 - 4: Cable



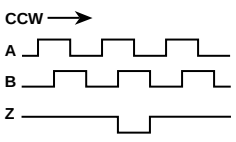
8: Terminals

Code 4: Output

4,5,8,9: Format C



6,7: Format D



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