

SERIES E23

Dynapar™ brand

Miniature Encoder

Key Features

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



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: $90^\circ \pm 18^\circ$ electrical

Symmetry: $180^\circ \pm 9^\circ$ electrical

Index: $180^\circ \pm 9^\circ$ 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: 3.7×10^{-4} oz-in-sec²

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



SERIES E23

Ordering Information

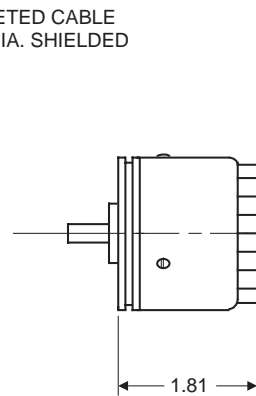
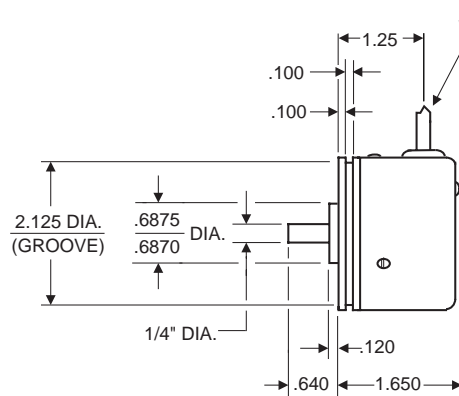
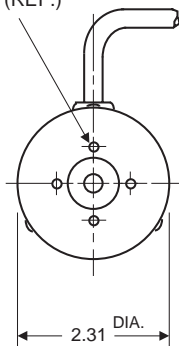
To order, complete the model number with code numbers from the table below:

Code 1: Model	Code 2: Pulses/Rev	Code 3: Mechanical	Code 4: Output	Code 5: Electrical	Code 6: Termination
E23	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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

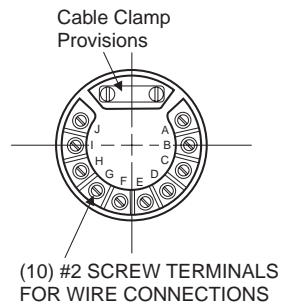
Dimensions (inches/mm)

Code 6: Termination

(4) #4-40 UNC-2B THD. 3/16" DP. MIN. EQUALLY SPACED ON A 1.000 DIA. B.C. (REF.)



8: Terminals



Code 4: Output

