

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: 5 to 26 VDC. at 200 mA max.;
 Line Driver: 5 to 26 VDC 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

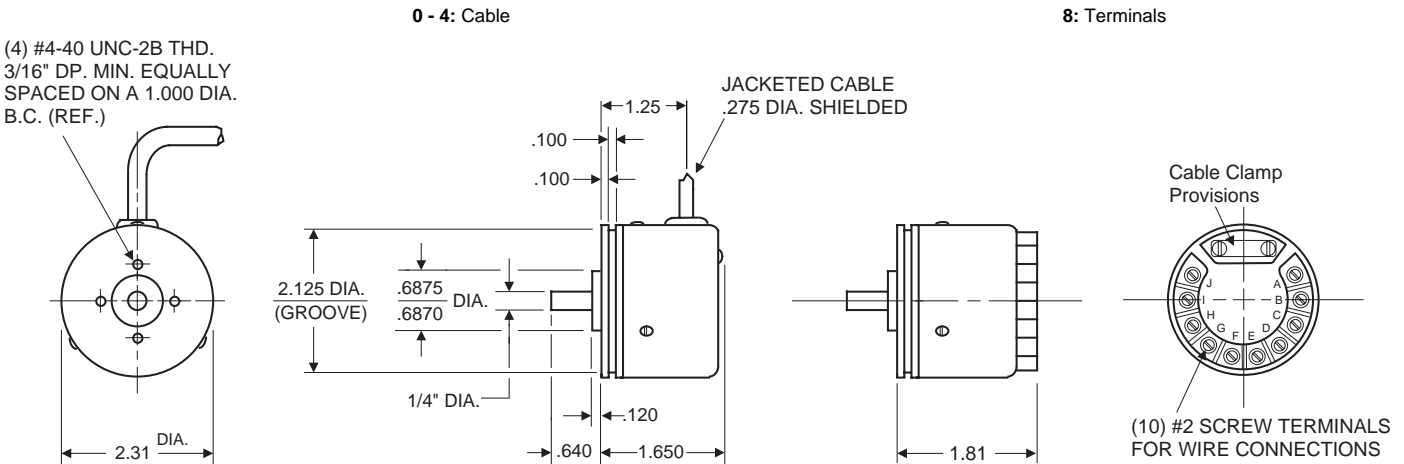
Ordering Information

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



Code 4: Output



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