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TECHNOLOGY GROUP

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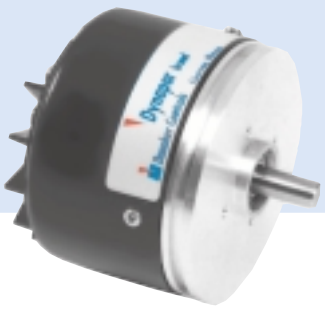
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Find the *Dynapar / Danaher Controls E2312300X4X02* at our website: *Click HERE*

Series E23

- *Compact Size 23 encoder*
- *Up to 2540 PPR with optional marker pulse*
- *Economical high performance*



COMMERCIAL

APPLICATION/INDUSTRY

The Series E23 is a high resolution, optical incremental encoder designed for light industrial and commercial applications. A standard Size 23 (2.3" dia.), the E23 is ideal for machine and equipment designs with limited space and high performance requirements.

Applications

- Motor mounted feedback for servo systems
- Assembly machines
- Robotics and material handling
- Printers, X/Y plotters, and phototypesetters
- Semiconductor I.C. bonders
- Medical diagnostic equipment (X-ray & CAT scanners)
- Position and/or velocity input for CNC's, PLC's, motion controllers, etc.

DESCRIPTION

A pre-wired cable or terminal screw connections are included with either servo clip or face mounting options.

Its bidirectional and optional marker pulse, current sink or differential line driver outputs are compatible with most electronic counters, instruments, PLC's, robot controls, CNC's, and industrial computers. The E23 is mechanically interchangeable with other Size 23 encoders on the market.

FEATURES AND BENEFITS

Mechanical and Environmental Features

- 1/4" stainless steel shaft
- Low inertia, low starting torque
- Up to 5000 RPM
- 0 to 70°C operating range
- Outline dimensions: 2.3" Dia. x 1.65" L.

Electrical Features

- Shielded cable or terminal screw options
- Up to 2540 pulses per revolution
- Bidirectional outputs and gated marker available
- 100 kHz frequency response
- 5-26 VDC supply voltage
- Single LED light source

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

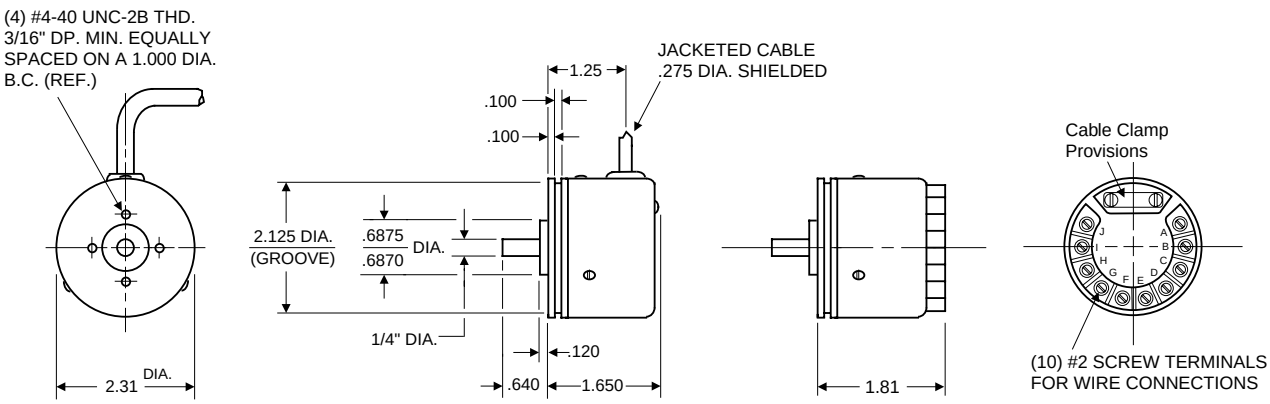
Differential		
Term.	Function (If Used)	Wire Color Code
A	Signal A	BRN
B	Signal B	ORN
C	Signal Z	YEL
D	Power Source	RED
E	No Connection	—
F	Common	BLK
G	Case	GRN
H	Signal $\bar{A}$	BRN/WH
I	Signal $\bar{B}$	ORN/WH
J	Signal $\bar{Z}$	YEL/WH

Series E23

Code 6: Termination

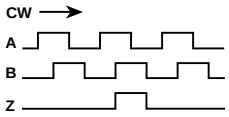
0 - 4: Cable

8: Terminals

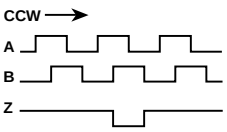


Code 4: Output

4,5,8,9: Format C



6,7: Format D



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

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

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We buy equipment

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