

## Model 510

**NEW**



### FEATURES:

*Cost Effective*

- Eliminates A/D converters

*High Resolution*

- Up to 36 positions

*Stability*

- Operating range of -40C to +105C

*Variability*

- Horizontal and vertical mounting

### Electrical

#### OUTPUT:

2-bit grey code, channel L leads channel R by 90 deg electrically in the CW direction. 4-bit grey code, absolute electrical position output.

#### CLOSED CIRCUIT RESISTANCE:

5 ohms maximum

#### OPEN CIRCUIT RESISTANCE:

100K ohm minimum

#### CONTACT RATING:

Resistance load 250mA  
@ 28Vdc maximum

#### SWITCHING LOADS:

1.5mA @ 115 Vac  
150mA @ 14Vdc

#### BOUNCE (Jitter):

5 ms/cycle @ 15 RPM

#### DIELECTRIC WITHSTANDING VOLTAGE:

1000 Vac @ sea level

#### ELECTRICAL TRAVEL:

Continuous

#### OPERATING SPEED:

50 RPM maximum

### Mechanical

#### ROTATIONAL TORQUE:

3-5 oz. in. (2.16 - 3.60 Ncm)

#### MECHANICAL TRAVEL:

Continuous

#### PANEL MOUNTING TORQUE:

7 lbs. in. (1.13Nm) maximum

#### SHAFT LOAD FORCE:

10 lbs. in. (1.13Nm) maximum

#### SHAFT PULL FORCE:

10 lbs. maximum

#### TERMINALS:

Standard PC style, 3 terminals on 0.100" (2.54mm) grid-in-line perpendicular or parallel to shaft. Solder hook available on 0.200" grid.

#### MOLDED CONSTRUCTION:

Molding compound used for housing/bushing and shaft has a UL94V-2 rating

#### ROTATIONAL LIFE:

100,000 detented cycles at rated load typical.  
(1 cycle = 720 degrees)

### Operational

#### TEMPERATURE RANGE:

Operating temperature: -40 degrees C to +105 degrees C  
Storage temperature: -55 degrees C to +120 degrees C

#### HUMIDITY:

Per MIL-STD. 202, Method 106C:  
Insulation resistance shall be 1 Megohm maximum of a relative humidity 90% @ 25 degrees C

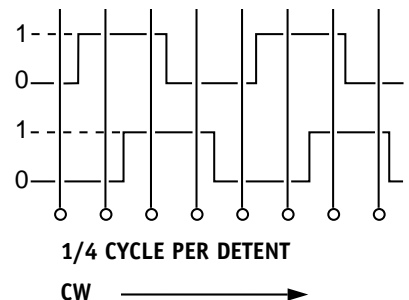
#### SHOCK:

Per MIL-STD. 202, Method 213, Test Condition G, consisting of 18 impacts shock at 50 G's for duration of 11ms

#### VIBRATION:

Per MIL-STD. 202, Method 214, Test Procedure A

### Output Table



**ISO 9001  
CERTIFIED**

## DIMENSIONS for Series 510

### 2-Bit, 36-Position Incremental Output

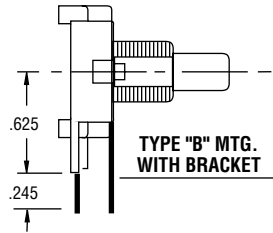
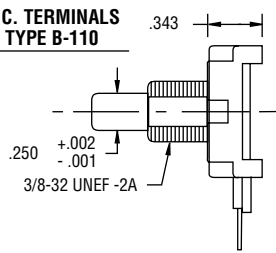
Step	1	G	2
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			

2-bit, 16 pos.

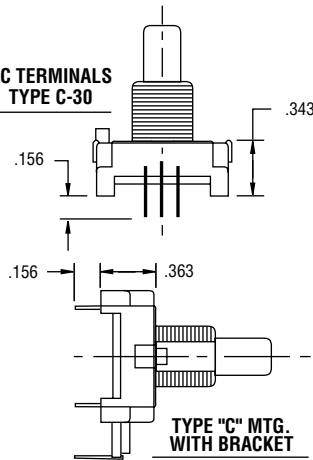
2-bit, 24 os.

2-bit, 36 pos.

P.C. TERMINALS  
TYPE B-110

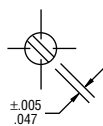
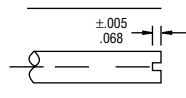


PC TERMINALS  
TYPE C-30

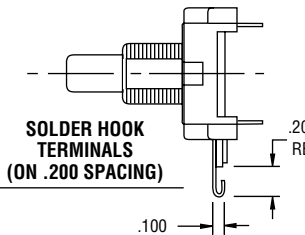
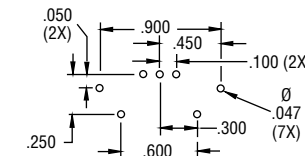
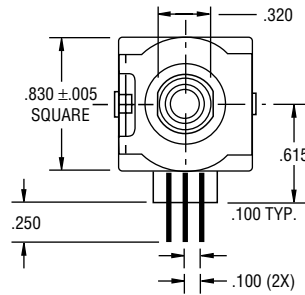
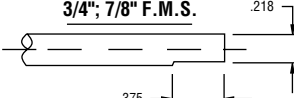


### SHAFT DIMENSIONS

SLOTTED SHAFT



FLATTED SHAFT  
3/4", 7/8" F.M.S.

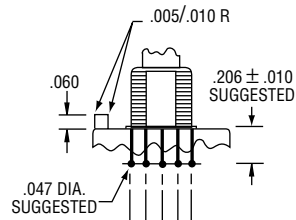
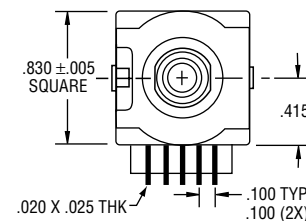


### 4-bit, 6-Position Incremental Output

Step	1	4	2	G	8
1					
2					
3					
4					
5					
6					
7					
8					
9					
#					
#					
#					
#					
#					
#					
#					

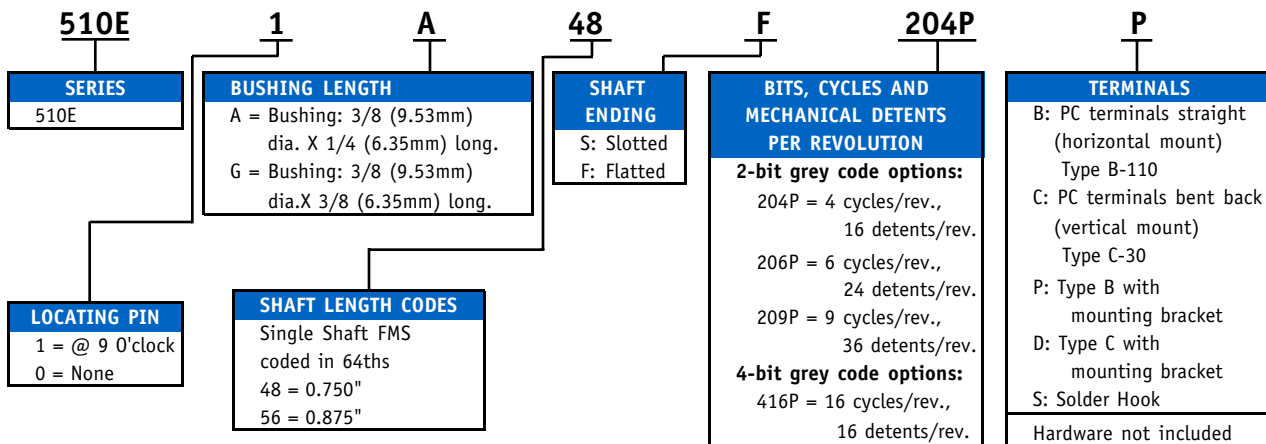
4-bit, 16 pos.

■ Closed □ Open



## ORDERING INFORMATION

When ordering, indicate the desired options as shown in this example:



To order or for custom applications, call 800-874-1874

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