

# PK23 & PK24 Series Encoders

PK2W-XX-YYV

<b>YY = Input Voltage (volts DC)</b>
5, 12, 15, 24 (Other voltages may be available. Contact the factory)
<b>XX = Pulses per Revolution (PPR)</b>
2, 4, 8, 10, 16, 30, 32, 60, 64 (Other choices may be available. Contact the factory)
<b>W = SERIES</b>
3 = Bodine style (1.812" mounting centers, #40-40 screw) 4 = Bison style (1.500" mounting centers, #6-32 screw)

The PK23 and PK24 Series encoders output a square wave that has a frequency proportional to encoder speed to provide more accurate speed indication and regulation when used with digital accessories. Their hollow shaft design allows for easy installation without tedious alignment procedures. The accuracy and ease of installation make the PK23 and PK24 Series the ideal choice for your encoder feedback.

The PK Series Encoder is available in several configurations as defined by its complete model number:

The **PK23** Series Encoder is designed to mount directly to specially modified Bodine Gearmotors and Motors with 1.812" mounting centers and a 0.250" diameter extension shaft.

The **PK24** Series Encoder is designed to mount directly to the rear end bell of accessory ready Bison Gearmotors with 1.500" mounting centers and a 0.187" diameter extension shaft.

## SPECIFICATIONS

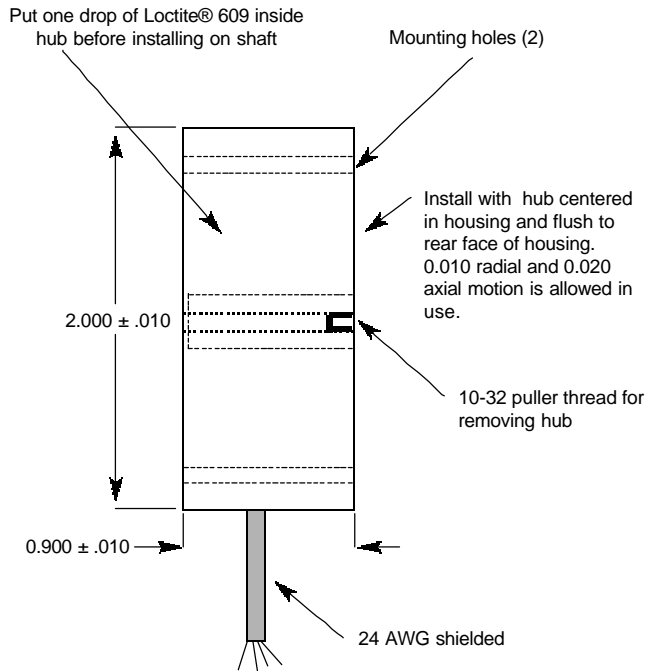
ELECTRICAL INPUT				
Voltage	5 VDC	12 VDC	15 VDC	24 VDC
Current	16 mA	16 mA	20 mA	20 mA
Regulation	± 10%	± 10%	± 10%	± 10%

ELECTRICAL OUTPUT (ALL MODELS)	
Wave Shape	Square wave nominal
Rise Time	Less than 20 ms with built-in 10k ohm pullup
Current	Sink 20 mA @ 0.6V, T < 70°C; 16 mA @ 0.6V, T = 80°C
Pulses per revolution	2, 4, 8, 10, 16, 30, 32, 60, 64 (Specify)

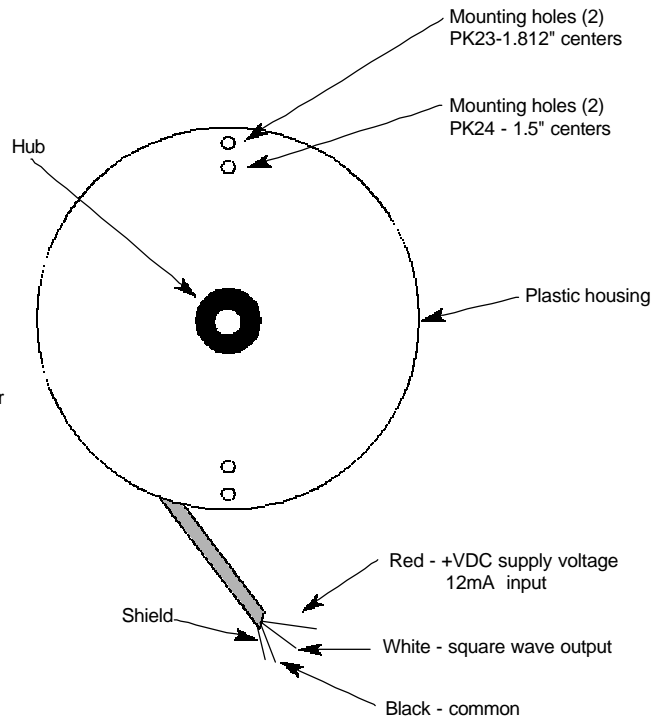
MECHANICAL	
Shaft Speed	20000 RPM maximum
Rotation	Either direction
Hub bore	0.188" PK24, 0.251" PK23
Housing	Delrin® (black)
Cable	3-conductor 24 AWG shielded (with drain)

ENVIRONMENTAL	
Operating Temperature	-40°C to +80°C

PK SERIES ENCODER LEADS	
RED	+VDC SUPPLY VOLTAGE
WHITE	SQUARE WAVE OUTPUT
BLACK	COMMON
SHIELD	CONNECT TO CONTROL COMMON



**PK24 & PK23** (actual size)



## INSTALLATION:

### Extension Shaft (when required)

1. The opening in the armature shaft must be clean and free from any traces of paint or metal particles. The extension shaft is inserted into the armature shaft after applying 1 to 2 drops of Loctite® 609 to the extension shaft.
2. The extension shaft must be completely inserted into the armature shaft.

### PK Series Encoder

1. Put one drop of Loctite® 609 inside the aluminum hub of the PK Encoder.
2. Push the PK Encoder onto the extension shaft with the aluminum hub centered in the plastic housing and flush with the rear face of the plastic housing (0.010 radial and 0.20 axial motion is allowed in use).
3. Install two mounting screws, (use #6-32 screws for PK24 and #4-40 screw for PK23).

### Removal of the PK Series Encoder

1. Remove the two mounting screws.
2. Insert a #10-32 screw into the threaded end of the aluminum hub on the PK encoder.
3. Turn the #10-32 screw clockwise until the PK Encoder breaks free.

Note: All dimensions are in inches. Specification data subject to change without notice