

## Bulletin 845K Optical Incremental Encoders

NEMA Type 1, Size 25, High Performance



Square Flange Mount  
845K-SADZ14CRY3



### Description

The Bulletin 845K is a size 25 industrial optical incremental encoder. These encoders electronically digitize shaft motion of a rotating element by converting mechanical motion to an electronic digital format.

The Bulletin 845K encoders have code disk resolutions up to 5000 pulses per revolution and a signal frequency response of 210 kHz.

### Features

- Code disk resolution up to 5000 PPR
- Optional sink, source, open collector or differential line driver output configurations
- 210kHz operating frequency
- 24in pigtail cable termination
- Input reverse polarity protection
- CE marked for all applicable directives

### Specifications

Electrical	
<b>Code Format</b>	Incremental, 2 channels with zero index
<b>Quadrature</b>	90° ±22° Channel A leads B CCW
<b>Symmetry</b>	50% ±10%
<b>Zero Index Channel</b>	1/2 cycle, gated to channel B
<b>Power Requirements</b>	Determined by catalog number: 5V DC ±5% @ 150mA maximum 8–24V DC @ 150mA maximum
<b>Frequency Response</b>	Data: 210kHz      Zero index: 125kHz
<b>Operating Speed (Data)</b>	(210kHz x 60)/pulses per revolution = RPM or 6000 RPM, whichever is lower
<b>Resolution</b>	Up to 5000 PPR on code disk
<b>Output Drive Capability</b>	PNP current source = 20mA NPN current sink = 20mA Differential line driver = ±20mA NPN open collector = 20mA
Mechanical	
<b>Starting Torque</b>	0.7Ncm typical [1.0in-oz]
<b>Running Torque</b>	0.7Ncm typical [1.0in-oz]
<b>Moment of Inertia</b>	15gcm <sup>2</sup> (2.1 x 10 <sup>-4</sup> oz-in-sec <sup>2</sup> )
<b>Slew Speed</b>	6000 RPM
<b>Shaft Loading</b>	Axial 89N [20lbs] (10lbs 5000 PPR) Radial 178N [40lbs] (20lbs 5000 PPR)
<b>Shaft Size</b>	9.517mm [3/8in] diameter
Environmental	
<b>Housing</b>	NEMA Type 1
<b>Temperature</b>	0°C to +60°C (+32°F to +140°F)—operating –25°C to +90°C (–13°F to +194°F)—storage
<b>Humidity</b>	85%, noncondensing
<b>Shock</b>	50g (11ms duration)
<b>Vibration</b>	20g (5 to 2000Hz)
<b>Approximate Ship Weight</b>	0.91kg (2lbs)

### Accessories

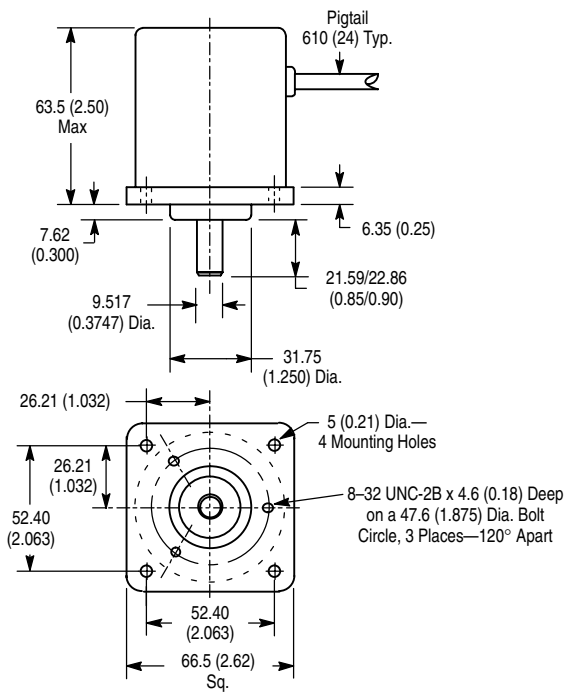
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Mounting Plates	7–55
Differential Encoder Buffer Board	7–58



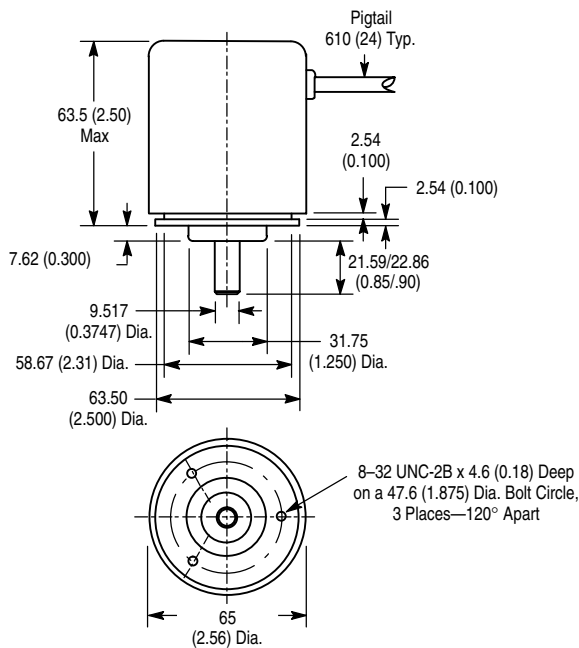
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## Dimensions—mm (inches)



Square Flange Mount



English Servo Mount