

# SERIES R45

**Dynapar™ brand**

## Bearingless Ring Kit

### Key Features

- 56 C-Face Ring Kit Motor Mounting
- Dependable Gear Tooth & Pickup Design
- Field-Replaceable Readhead for Easy Service
- Thin 5/8" Profile Saves Valuable Space



## SPECIFICATIONS

### STANDARD OPERATING CHARACTERISTICS

**Code:** Incremental, Magnetic  
**Resolution:** 60 PPR (pulses/revolution), optional 120 PPR with X2 output  
**Format:** Single channel unidirectional (A), or two channel quadrature (AB) outputs  
**Phase Sense:** A leads B for CW rotation of motor shaft  
**Quadrature Phasing:** 90° ± 45° electrical  
**Symmetry:** 180° ± 36° electrical  
**Waveforms:** Squarewave with rise and fall times less than 1 microsecond into a load capacitance of 1000 pf

### ELECTRICAL

**Input Power:** (not including output loads)  
 Single ended 4.5 min. to 16.5 VDC max. at 50 mA max.;  
 Open collector and differential line driver: 4.5 min. to 26 VDC max. at 75 mA max.

#### Outputs:

Single ended with 2 kΩ pullup: 16.5 VDC max., 20 mA sink at 0.5 V max.;  
 Open Collector: 30 VDC max., 40 mA sink max.;  
 7272 Differential Line Driver: 40 mA sink or source

**Frequency Response:** 10 kHz min.

**Noise Immunity:** Tested to EN61326-1

**Electrical Immunity:** Reverse polarity and short circuit protected

#### Terminations:

Wire leads: 7" long min., 18 AWG;  
 Screw terminals: accept 22 to 14 AWG solid or stranded wires

### MECHANICAL

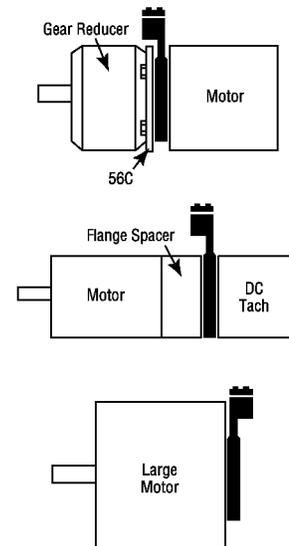
**Mounting Configuration:** 4.5" C-Face Mount  
**Motor Frame Sizes:** 56C, 143TC, 145TC, 182C and 184C  
**Bore Diameter:** 5/8", 7/8" nominal  
**Mating Shaft Length:** 5/8" min.  
**Shaft Speed:** 5,000 RPM max.  
**Allowable Endplay:** ±0.060  
**Readhead to Gear Gap:** 0.020" nominal, 0.030 max.  
**Gear:** 1010 Steel  
**Moment of Inertia:** 0.0035 in-lb-sec<sup>2</sup>  
**Housing:** Cast Aluminum, Anodized finish  
**Weight:** 4.7 lbs

### ELECTRICAL CONNECTIONS

Function (If Used)	Wire Color	Terminal
Signal X2	ORG	1
Signal B	BRN	2
Signal A	YEL	3
+V in	RED	4
Common	BLK	5
Signal $\bar{A}$	WHT	6
Signal $\bar{B}$	GRN	7
Signal $\bar{X2}$	BLU	8

### ENVIRONMENTAL

**Operating Temperature:** -40 to +85 °C  
**Storage Temperature:** -40 to +90 °C  
**Shock:** 20 G's for 11 milliseconds duration  
**Vibration:** 5 to 2000 Hz at 2.5 G's  
**Humidity:** Up to 98% (non-condensing)



## Ordering Information

To order, complete the model number with code numbers from the table below:

Code 1: Model	Code 2: PPR	Code 3: Gear, Bore	Code 4: Output	Code 5: Electrical	Code 6: Termination
<b>R45</b>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ordering Information					
<b>R45</b> Motor Mount Ring, for NEMA 4-1/2" C-Face Motors	<b>0060</b>	<b>0</b> no gear, readhead only <b>1</b> 5/8" bore (56C) <b>2</b> 7/8" bore (143TC, 145TC, 182C, 184C)	<b>0</b> no readhead, gear only <b>1</b> single channel (A), unidirectional <b>2</b> dual channel (AB), bidirectional <b>3</b> dual channel (AB), bidirectional with unidirectional (X2) speed output	<b>0</b> no readhead, gear only Available when Code 4 is 1, 2 or 3: <b>1</b> 5-15V in, 5-15V single ended out <b>2</b> 5-26V in, 5-26V differential line driver out <b>3</b> 5-26V in, 5-26V open collector out	<b>0</b> no readhead, gear only Available when Code 4 is 1, 2 or 3: <b>1</b> wire leads <b>2</b> screw terminals <b>A</b> Same as 1, with protective cover <b>B</b> Same as 2, with protective cover
112122-0001	R45 protective shaft cover accessory				

Example Model number: 5/8" bore, gear only = R00 0060 1000

## DIMENSIONS

