

INCREMENTAL ENCODERS

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

HD
Heavy Duty



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

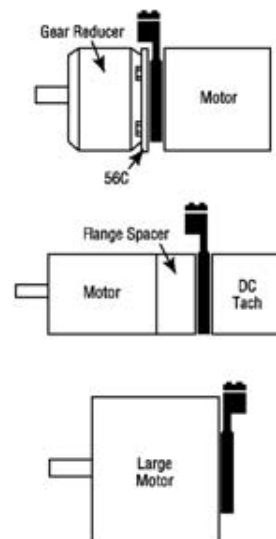
Mounting Configuration: 4.5" C-Face Mount
Motor Frame Sizes: 56C, 143TC, 145TC, 182C and 184C
Bore Diameter: 5/8", 7/8" nominal
Mating Shaft Length: 5/8" min.
Shaft Speed: 5,000 RPM max.
Allowable Endplay: ±0.060
Readhead to Gear Gap: 0.020" nominal, 0.030 max.
Gear: 1010 Steel
Moment of Inertia: 0.0035 in-lb-sec²
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 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)



INCREMENTAL ENCODERS



SERIES R45

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
R45	<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					
R45 Motor Mount Ring, for NEMA 4-1/2" C-Face Motors	0060	0 no gear, readhead only 1 5/8" bore (56C) 2 7/8" bore (143TC, 145TC, 182C, 184C)	0 no readhead, gear only 1 single channel (A), unidirectional 2 dual channel (AB), bidirectional 3 dual channel (AB), bidirectional with unidirectional (X2) speed output	0 no readhead, gear only Available when Code 4 is 1, 2 or 3: 1 5-15V in, 5-15V single ended out 2 5-26V in, 5-26V differential line driver out 3 5-26V in, 5-26V open collector out	0 no readhead, gear only Available when Code 4 is 1, 2 or 3: 1 wire leads 2 screw terminals A Same as 1, with protective cover 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

