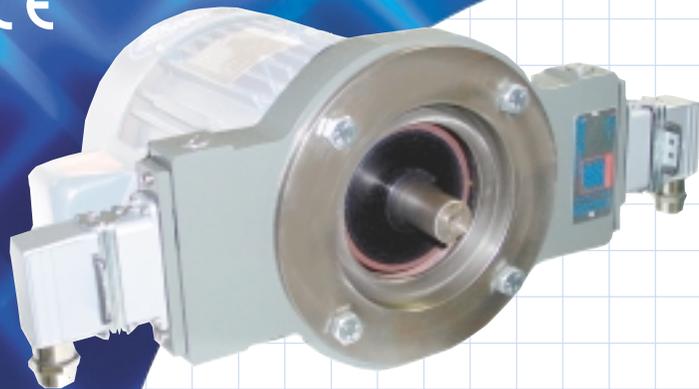


Series R85 Rotopulsers®

This product has been discontinued.
Please contact Dynapar for assistance.
1-800-873-8731
www.dynapar.com



R85 Shown Mounted on Motor

- **Field replaceable, single or dual isolated readheads for easy installation, service or redundancy**
- **Non-optical magnetic code wheel and cast Iron ring housing survive the harshest paper, steel and glass mill environments**
- **The thinnest ring housing to offer replaceable readheads or dual outputs**

Series R85 Rotopulsers® are the most cost effective, high performance velocity and position feedback devices for large motor applications.

Direct mounting to NEMA motors with a front or rear C-face without shaft couplings or brackets saves time and cost, and installation space. The separately mounted ductile Iron ring housing and magnetized code wheel do not require complicated alignment or gapping procedures during installation. No special parts or test equipment are needed, making the installation faster and more reliable.

The magneto-resistive sensor and electronics are encapsulated to protect against harsh industrial environments, and can be replaced in the field for easy service. The magnetized wheel features a split collar clamp mount that provides retention under high acceleration and does not raise burrs or damage the motor shaft.

Dynapar Exclusive: Series R85 Rotopulsers® are automatically gapped by motor pilot locating pins on the readhead, which eliminate the need for complicated alignment or adjustment procedures during installation. The end result is stable, quadrature and Index pulse signals.

Dynapar Exclusive: Series R85 Rotopulsers® are available with 120°C operating temperature electronics, allowing large motors to achieve their full torque or HP output. Often, a smaller, less expensive motor can be specified because less temperature derating is needed.

Dynapar Exclusive: Series R85 Rotopulsers® are the thinnest ring style devices with field replaceable electronics. Now, off-the-shelf motors can have precise digital feedback with plenty of shaft extension available on the drive end for gear reducers, or on the accessory end for brakes.

Dynapar Exclusive: Series R85 Rotopulsers® electronics offer the greatest flexibility and reliability. They operate from 5 to 26 VDC power and provide wide voltage, line driver outputs that are compatible with all common motor drives and PLCs. Additionally, they are protected from over-voltage or reverse voltage input power, and the outputs are protected against short-circuits.

Series R85 Rotopulsers® include all necessary mounting hardware.

SPECIFICATIONS

Electrical

Code: Incremental, bidirectional with optional index

Resolution: 240 to 1200 pulses per revolution (PPR)

Input Voltage: 4.5 min. to 26 max. VDC at 80 mA max.

Output Frequency: 120 kHz min.

Phase Sense: A leads B with CCW motor shaft rotation

Phasing: 90° ± 22° electrical

Symmetry: 180° ± 54° electrical

Index Pulse Width: 270° electrical

Output Type: 7272 Differential Line Driver: 40 mA sink or source

Electrical Protection: Input reverse and overvoltage, output short circuit

Noise Immunity: Tested to EN50082-2 Heavy Industrial for Electrostatic Discharge, Radio Frequency Interference, Electrical Fast Transients, Conducted Radio Frequency Interference, and Power Frequency Magnetic Fields

Terminations: Screw terminals and heavy duty connectors accept 22 to 14 AWG solid or stranded wires

Mechanical

Motor Frame Sizes: 182TC, 184TC, 213C, 215C, 213TC, 215TC, 254UC, 256UC, 254TC, 256TC

Ring Material: Ductile iron, Zinc chromate finish with powder coat paint

Ring Thickness: 1.5"

Wheel Material: Aluminum hub with injection molded plastic perimeter, 4.1" dia. Split collar hub clamp

Motor Shaft Sizes (nominal): 1-1/8", 1-3/8", 1-5/8", 1-7/8", 2", 2-1/8", 2-1/4", 2-3/8", 2-1/2", 2-7/8"

Motor Shaft Tolerance: +0.000/ -0.001"

Motor Shaft Length Required: 0.800" minimum

Allowable End Play: ±0.045" maximum

Allowable Shaft Runout: 0.003" T.I.R. maximum

Rotational Speed: 5,000 RPM maximum.

Environmental

Operating Temperature: -40° to +85°C standard; -40° to +120°C optional

Storage Temperature: -40° to +120°C

Humidity: to 98% RH (non-condensing)

Shock: 50 G's for 11 msec. duration

Vibration: 20 G's @ 5-2000 Hz

Electrical Connections

Function (If Used)	Terminal
Signal Z	1
Signal B	2
Signal A	3
+V in	4
Common	5
Shield	6
Signal A ⁻	7
Signal B ⁻	8
Signal Z ⁻	9

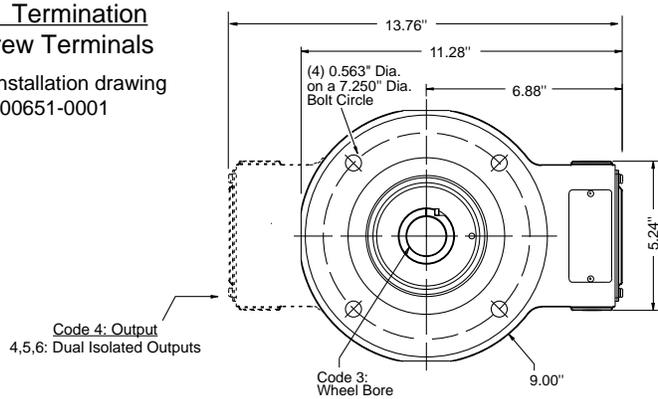
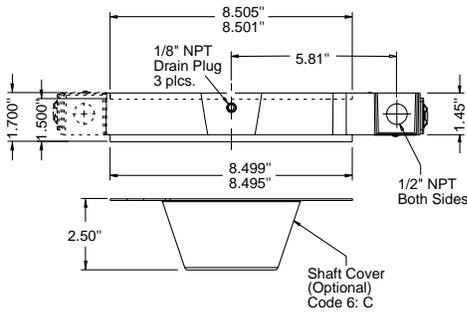
Heavy Duty Connector Electrical Connections

Function (If Used)	Pin
Common	1
Signal B	2
Signal A	3
Signal Z	4
N/C	5
+V in	6
Signal B ⁻	7
Signal A ⁻	8
Signal Z ⁻	9
Shield	10

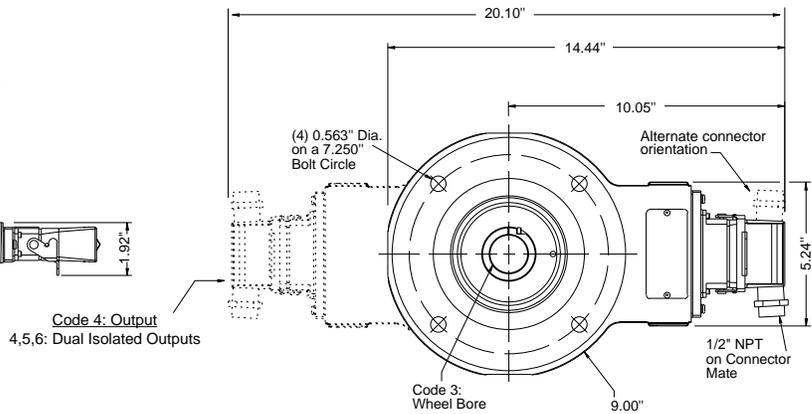
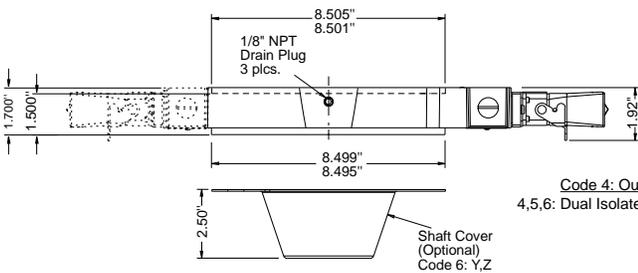
R85 Dimensions

Code 6: Termination
2,C: Screw Terminals

Refer to installation drawing number 200651-0001



Code 6: Termination
H,M,Y,Z: Heavy Duty Connector
Refer to installation drawing number 200651-0002



Ordering Information

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

Code 1: Model	Code 2: PPR	Code 3: Wheel Bore	Code 4: Output	Code 5: Electrical	Code 6: Termination
R85	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
R85 Motor Mount Ring, for NEMA 8-1/2" C-Face Motors (182TC, 184TC, 213C/TC, 215C/TC, 254C/TC/UC, 256TC/UC)	0000 no wheel or readhead, ring only 0240 0600 0256 1024 0300 1200 0512	000 no wheel, ring or readhead only 113 1-1/8" bore (182TC, 184TC, 213C, 215C, 254C) 138 1-3/8" bore (213TC, 215TC, 254UC, 256UC) 163 1-5/8" bore (254TC, 256TC) 188 1-7/8" bore	0 no readhead, wheel only 1 no readhead, single output ring only 2 two channel (AB), bidirectional 3 three channel (ABZ), bidirectional with index 4 dual, isolated two channel (AB) bidir 5 no readhead, dual output ring only 6 dual, isolated three channel (ABZ) bidir w/index	0 no readhead, ring or wheel only Available when Code 4 is 2, 3, 4 or 6: 2 5-26V in, 5-26V differential line driver out 3 as "2" above, high temp. to 120°C	0 no readhead, ring or wheel only Available when Code 4 is 2, 3, 4 or 6: 2 screw terminals C screw terminals w/shaft cover H heavy duty w/o mating connector M heavy duty w/ mating connector Y heavy duty w/o mating connector, w/ shaft cover Z heavy duty w/ mating connector and shaft cover
R02 No Ring (Readhead or Wheel Only)	Available when Code 4 is 4 or 6: Order Code PPR Output 1/2 2424 (240/240) 2525 (256/256) 2551 (256/512) 2510 (256/1024) 5151 (512/512) 5110 (512/1024) 1010 (1024/1024) 6060 (600/600) 6012 (600/1200) 1212 (1200/1200)	200 2" bore 213 2-1/8" bore (360) 225 2-1/4" bore 238 2-3/8" bore (400) 250 2-1/2" bore 288 2-7/8" bore (500)			
110437-0002	R85 Protective Shaft Cover Accessory				
111097-0001	Mating connector for heavy duty connector option				

Example Model number: 1024 PPR, 5/8" bore, wheel only = R021024063000