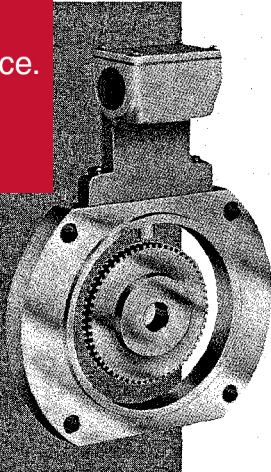


# Series 76 & 96 Rotopulser® Encoders

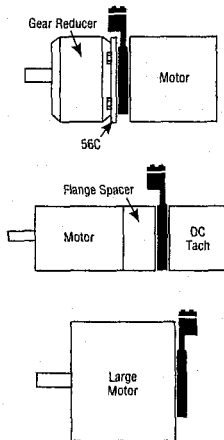
This product has been discontinued.  
Please contact Dynapar for assistance.  
1-800-873-8731  
www.dynapar.com



- 60 & 120PPR tach signals
- Designed for NEMA 56C through 184C AC or DC motor frames
- Rugged magnetic pickup with separately mounted gears
- No bearings to fail; no flex couplings required

Motor-Mount Ring Kit Rotopulsers® provide precise digital speed feedback for NEMA 56C, 143TC, 145TC, 182C and 184C frame AC and DC motors. These rings are mounted to the motors and utilize rugged magnetic pickups with separately mounted gears. The ring and gear are designed and machined to function properly without further adjustments when mounted to NEMA C face, 4-1/2" dia., motor frames and accessory mounts. There are no flexible couplings required or bearings to fail.

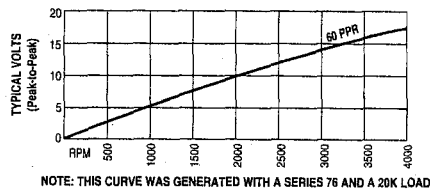
Series 76 and 96 Rotopulsers are designed to provide precise, reliable speed signals for many monitoring and control applications, and are the standard feedback accessory for many suppliers of AC and DC variable speed drives. When a bidirectional unit is teamed with a Dynapar FV2 Frequency-to-Voltage Converter, the Series 76 and 96 rings provide lower cost replacement for a precision brushless DC tach generator. Series 76 units are available with your choice of variable reluctance sensors with self-powered sinewave output or magneto-resistive sensors with squarewave output. Bidirectional Series 96 are available with magneto-resistive sensors with squarewave outputs.



Dynapar ring kits are among the thinnest packages available, providing easier installation and retrofit of constant speed systems. The machined flat on the bottom allow mounting to smaller, foot-mounted motors. The "overhung" conduit box allows mounting to the rear accessory flange of larger motors without mechanical interference. All necessary mounting hardware is included. Reliable operation in wet, dirty, high temperature industrial environments has made the Series 76 and 96 Rotopulsers a popular feedback package.

## SPECIFICATIONS (Variable Reluctance Models)

PPR: 60, 120  
**Speed Range:** 200 to 4000 RPM max.  
**Operating Temperature:** 0 to 170°F  
**Housing:** Cast aluminum  
**Gear Inertia:** 2000 gm cm<sup>2</sup>  
**Pickup Gap:** .008"  
**Cable Length:** Maximum recommended cable length is 100 feet, but can be extended to 300 feet at speeds above 1000 RPM.  
**Termination:** Conduit box  
**Recommended Cable:** Belden 8737 or equivalent; 2-conductor twisted pair with shield  
**Output:** Sinewave greater than .5 volt peak (2k ohm load) above 200 RPM; greater if gap is reduced to .002" during installation.



## SPECIFICATIONS (Magneto-Resistive Models)

PPR: 60, 120  
**Speed Range:** 0 to 4000 RPM max.  
**Input Power:** 4.5 to 15 VDC  
**Current:** 15 mA per channel plus load  
**Housing:** Cast aluminum  
**Gear Inertia:** 2000 gm cm<sup>2</sup>  
**Output Type:** Logic level, squarewave  
**Output Frequency:** 10 kHz max.  
**Quadrature Phasing:** Series 96: 90° ±36° at 10 kHz  
**Recommended Cables:** 1) Belden 9770 or equivalent; 3-conductor cable for each squarewave output. 2) Alpha 2254; 6-conductor cable or equivalent for bidirectional output.

## Electrical Output Ratings (Magneto-Resistive Models Only)

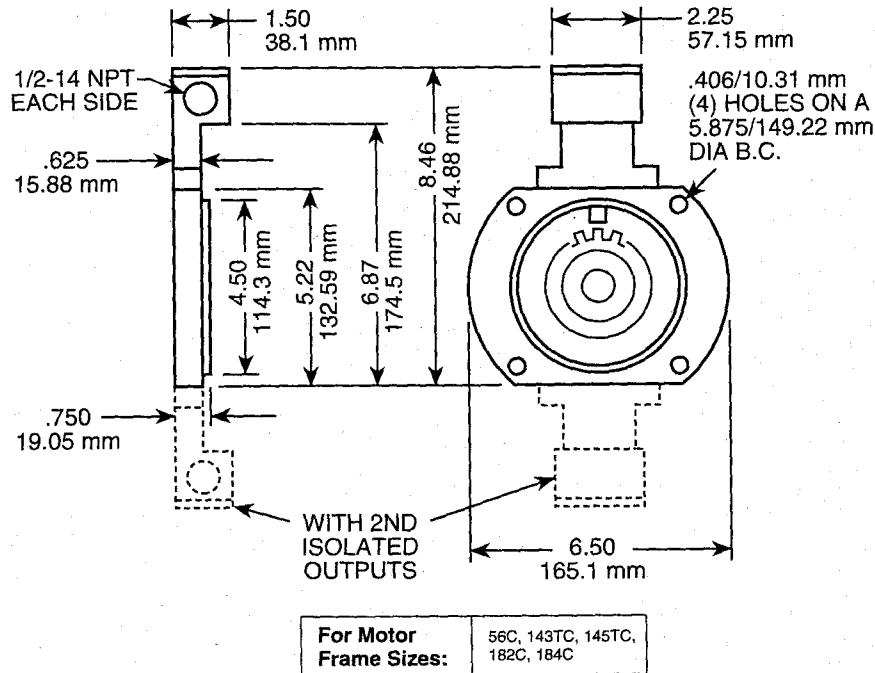
Model	Outputs	Voltage Range	Sink (mA)	Source (mA)
Series 76 & 96	Current Sink (Open collector w/2.0 kΩ pull-ups)	4.5 to 15 VDC	25	0.8 @ 3.5 volt output

## Electrical Connections

Function (If Used)	Wire Color Codes	
	Series 76	Series 76 & 96
Power	---	RED
Signal A	WHT	YEL
Common	BLK	BLK
Signal B	---	BRN

Note: For tachs with 2nd isolated outputs: the second set of isolated outputs are identically color-coded and labeled (as listed above) in the optional unilet conduit box.

### Outline Dimensions



For mounting to any 4-1/2" dia. NEMA C motor or accessory flange.

### Ordering Information

Rings and gears must be ordered separately. Order rings first, by following the table from left to right. Then refer to the Gear Ordering Table appropriate to the Series 76 and 96 ring selected. Choose a gear model with the required bore size and PPR by following the table from left to right. Be sure to select a gear with the same PPR value as the ring.

#### Series 76 Unidirectional Tachs

Output Waveform	For Motor Frame Sizes	PPR's	Model No.
<b>Unidirectional</b> A	56C, 143TC, 145TC, 182C, 184C	60, 120	76-0RT-000
<b>Unidirectional</b> (current sink outputs) A	56C, 143TC, 145TC, 182C, 184C	60, 120	76-0ZT-000
w/2nd isolated output A'	56C, 143TC, 145TC, 182C, 184C	60, 120	76-0Z2T-000

#### Series 96 Bidirectional Tachs

Output Waveform	For Motor Frame Sizes	PPR	Model No.
<b>Bidirectional</b> (current sink outputs) A B	56C, 143TC, 145TC, 182C, 184C	60	96-OBT-000
w/2nd isolated output A' B'			96-OB2T-000

#### Gears for Series 76 & 96

Description		Model No.	
Typical Motor Frame Sizes:	Bore Size	60 PPR	120 PPR
56C	5/8"	16002070184	16002070213
143TC, 145TC, 182C, 184C	7/8"	16002070185	16002070214