

# SERIES RIM Tach 1250

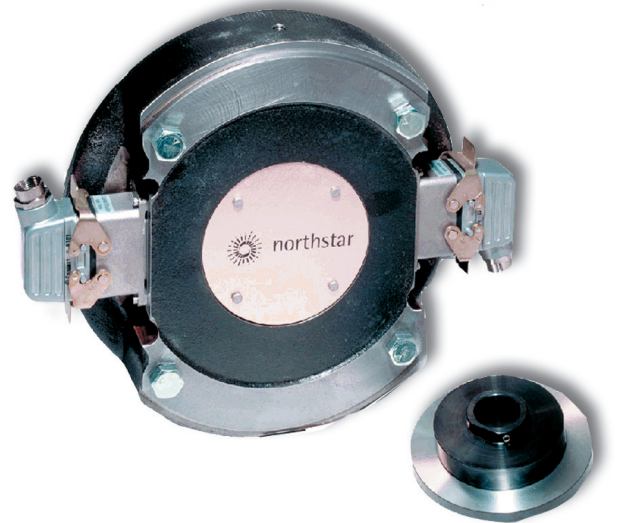
**NorthStar™ brand**

## Bearingless Encoder

### Key Features

- **Bearingless Design Mounts to 250-C Face Motors (12.5" Diameter Mounting Flange)**
- **Sensor Modules are Removable On-The-Fly and Require No Gapping**
- **Stainless Steel and Ductile Cast Iron Construction for Harsh Mill Environments**
- **Magneto-Resistive Technology Resists Dust, Dirt, Oil, Water and Other Common Contaminants**

This product has been discontinued and replaced by the RIM Tach RT1 series. Please visit [www.dynapar.com](http://www.dynapar.com) for more information



## SPECIFICATIONS

### STANDARD OPERATING CHARACTERISTICS

**Code:** Incremental, Magnetic  
**Pulses per Revolution:** 60-1200 PPR  
**Phasing Sense:** A leads B for Counter-Clockwise rotation (CCW) viewing encoder-mounted end  
**Quadrature Phasing:** 90° ± 22°  
**Symmetry:** 180° ± 54°  
**Index:** 270°, ungated (optional gated to falling B edge)  
**Number of Output Modules:** Single or Dual

### ELECTRICAL

**Input Power Requirements:** 5-15 VDC, 15-26 VDC, 45 mA typical per sensor module plus line driver load  
**Output Signals:** 4428 Differential Line Driver: 150mA, sink or source  
**Frequency Response:** 0 - 120kHz Data & Index  
**Noise Immunity:** Tested to EN61326-1  
**Electrical Immunity:** Reverse polarity and short circuit protected  
**Connector:** 10 pin industrial duty latching, sealed NEMA 4 & 12, IP65

### MECHANICAL

**Bore Sizes:** 5/8" to 8" Available  
**Mounting Configuration:** 12.5" C-Face Mount for NEMA MG1 Standards  
**Shaft Speed:** 7,000 RPM (J or K wheels); 3600 RPM (TL wheels)  
**Shaft Length Required:** 3.0" min  
**Allowable Shaft End-Play:** ± 0.050"  
**Allowable Shaft Runout:** 0.003" TIR  
**Acceleration Rate:** 3600 rpm/sec max  
**Housing Material:** Cast Iron/Stainless Steel  
**Weight:** 38.5 lbs

### ENVIRONMENTAL

**Operating Temperature Range:** -40°C to +80°C  
**Storage Temperature Range:** -40°C to +120°C  
**Shock (Sensor Module):** 30 G's Min  
**Vibration:** 18 G's @ 5-2000 Hz spectrum  
**Humidity:** Up to 98% (non-condensing)

### ELECTRICAL CONNECTIONS

Signal	Connector Pin	Pigtail Cable	MS 3102E18-IT#
Common	1	Black	A
B	2	Green	E
A	3	Blue	D
Z *	4	Violet	C
No Connection	5	—	—
Vcc	6	Red	B
B̄	7	Yellow	H
Ā	8	Gray	G
Z *	9	Orange	I
Shield	10	Braid	J

\* Index (Z) optional. See Ordering Information

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## Ordering Information

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

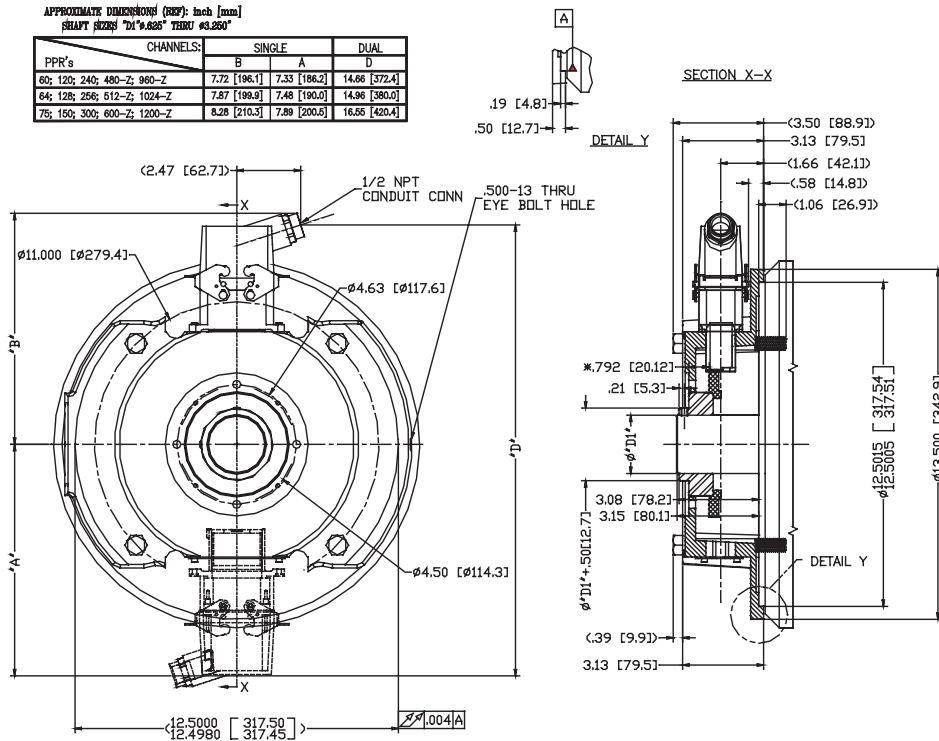
Code 1: Model	Code 2: PPR	Code 3: Index	Code 4: Wheel Bore	Code 5: Output	Code 6: Electrical	Code 7: Termination	
<b>R1</b>	□□□□	□	□□□	□	□	□	
<b>Ordering Information</b>							
<b>R1</b> Motor Mount Ring, for 12-1/2" C-Face Motors	<b>0060</b>	<b>0300</b>	<b>L</b> No Index	<b>J04</b> 5/8"	<b>1</b> Single <b>2</b> Dual (Isolated) Differential, bidirectional signals (A, $\bar{A}$ , B, $\bar{B}$ )	<b>L</b> 5-15V in, 5-15V Line Driver (4428) out <b>R</b> 15-26V in, 15V Line Driver (4428) out <b>5</b> 5-15V in, 5V Line Driver (4428) out	<b>C</b> Latching Industrial Connector with 1/2" NPT <b>F</b> Latching Industrial Connector without Mating Connector <b>M</b> 10 pin MS Connector <b>P</b> 18" Pigtail
	<b>0064</b>	<b>0480</b>	Available when Code 2 is 0480, 0512, 0600, 0960, 1024, 1200 or 2048	<b>J05</b> 7/8"			
	<b>0075</b>	<b>0512</b>		<b>J06</b> 1.00"			
	<b>0120</b>	<b>0600</b>		<b>J07</b> 1-1/8"			
	<b>0128</b>	<b>0960</b>		<b>K09</b> 1-3/8"			
	<b>0150</b>	<b>1024</b>		<b>K10</b> 1-1/2"			
	<b>0240</b>	<b>1200</b>		<b>K11</b> 1-5/8"			
	<b>0256</b>	<b>G</b> Gated Index (Z, $\bar{Z}$ ) <b>Z</b> Differential Index (Z, $\bar{Z}$ )		<b>K12</b> 1-3/4"			
				<b>K13</b> 1-7/8"			
				<b>K14</b> 2"			
<b>K15</b> 2-1/8"							
			<b>K16</b> 2-1/4"				
			<b>K17</b> 2-3/8"				
			<b>K18</b> 2-1/2"				
			<b>K19</b> 2-7/8"				
			For additional bore sizes up to 8.0" maximum, please consult factory.				

**Note:** See ACCESSORIES Section For Connectors, Grounding Brushes, Spare Parts and Pulse Wheels

## DIMENSIONS inch [mm]

APPROXIMATE DIMENSIONS (REF): inch [mm]  
SHAFT SIZES: 2" x .025" TOLER: #3.350"

PPR's	CHANNELS:		SINGLE	DUAL
	B	A		
60; 120; 240; 480-Z; 960-Z	7.72 [196.1]	7.33 [186.2]	14.66 [372.4]	
64; 128; 256; 512-Z; 1024-Z	7.87 [199.9]	7.48 [190.0]	14.96 [380.0]	
75; 150; 300; 600-Z; 1200-Z	8.28 [210.3]	7.89 [200.6]	16.56 [420.4]	



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