HEAVY DUTY

SERIES RIM 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



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

 $\label{eq:code:code} \begin{array}{l} \mbox{Code: Incremental} \\ \mbox{Pulses per Revolution: 60-2048} \\ \mbox{Phasing Sense: } A leads B for Counter-Clockwise \\ rotation (CCW) viewing encoder-mounted end \\ \mbox{Quadrature Phasing: } 90^\circ \pm 22^\circ \\ \mbox{Symmetry: } 180^\circ \pm 54^\circ \\ \mbox{Index: } 270^\circ, \mbox{ ungated (optional gated to \\ falling B edge)} \end{array}$

ELECTRICAL

Input Power Requirements: 5-15 Volts DC, 45 mA typical per sensor module plus line driver load **Output Signals:** Line Driver, 150mA source/sink **Frequency Response:** 0 - 120kHz Data & Index **Electrical Immunity:** 2kV ESD, Reverse Polarity, Short Circuit

Connector: 10 pin industrial duty latching, sealed NEMA 4 &12, IP65

MECHANICAL

Shaft Speed: 7,000 RPM (J or K wheels); 3600 RPM (TL wheels) Mounting Configuration: 12.5" face mount for NEMA MG1 standards Housing Material: Cast Iron/Stainless Steel Acceleration Rate: 3600 rpm/sec max Shaft Length Required: 3.0" min Allowable Shaft End-Play: ± 0.050" Allowable Shaft Runout: 0.003" TIR

ELECTRICAL CONNECTIONS

Signal	Connector Pin	Pigtail Cable	MS 3102E18-IT#	
Common	1	Black	Α	
В	2	Green	E	
А	3	Blue	D	
Z *	4	Violet	С	
No Connection	5		_	
Vcc	6	Red	В	
B	7	Yellow	Н	
Ā	8	Gray	G	
Z *	9	Orange		
Shield	10	Braid	J	

* Index (Z) optional. See Ordering Information



ENVIRONMENTAL

Operating Temperature Range: -40°C to +80°C Storage Temperature Range: -40°C to +120°C Humidity: to 98% RH (non-condensing) Shock (Sensor Module): 1 meter drop test, 30 G's Min

Vibration: 18 G's @ 5-2000 Hz spectrum



SERIES RIM 1250

Ordering Information

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

Coc	de 1: Model	Code 2	2: PPR	Code 3: Index	Code 4: Wheel Bore	Code 5: Output	Code 6: Electrical	Code 7: Termination			
	R1										
	Ordering Information										
R1	Motor Mount Ring, for 12-1/2" C-Face Motors	0060 0064 0075 0120 0128 0150 0240 0256	0300 0480 0512 0600 0960 1024 1200 2048	L No Index Available when Code 2 is 0480, 0512, 0600, 0960, 1024, 1200 or 2048 G Gated Index (Z, Z) Z Differential Index (Z, Z)	J04 5/8" bore J05 7/8" bore J06 1.00" bore J07 1-1/8" bore K09 1-3/8" bore K10 1-1/2" bore K11 1-5/8" bore K12 1-3/4" bore K13 1-7/8" bore K14 2" bore K15 2-1/8" bore K16 2-1/4" bore K17 2-3/8" bore K18 2-1/2" bore K19 2-7/8" bore Additional Shaft Sizes Available Up to 8.00" Maximum	 1 Single 2 Dual (Isolated) Differential, bidirectional signals (A, Ā, B, B) 	L 5-15V in, 5-15V Line Driver (4428) out R 15-26V in, 15V Line Driver (4428) out 5 5-15V in, 5V Line Driver (4428) out	 C Latching Industrial Connector with 1/2" NPT M 10 pin MS Connector P 18" Pigtail 			

DIMENSIONS [mm]

