

NexGen RIM Tach 1250

NorthStar™ brand

Bearingless Encoder

Key Features

- New Sensor Provides up to 0.075" of Air Gap, Over 50% More Than Competitive Models
- Expanded Resolution up to 2400PPR
- Redesigned Circuitry for On-Board Diagnostics with LED and Alarm Output
- Wide -40° to +100°C Temperature Range
- Optimized Pulse Wheel for Greater Shaft Holding Force and Ease of Assembly
- Available Shaft Sizes From 0.625 to 2.875



NEW For 2012!



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental
Pulses per Revolution: 60 to 2400
Phasing Sense: A leads B for Counter-Clockwise rotation (CCW) viewing male C-face end
Quadrature Phasing: 90° ± 45°
Duty Cycle: 50% ± 15%

ELECTRICAL

Input Power Requirements: 5-24VDC, 95mA typical per sensor module, plus line driver load
Output Signals: Line Driver, 150mA source/sink
Frequency Response: 0 - 180kHz Data & Index
Electrical Immunity: 2kV ESD, Reverse Polarity, Short Circuit, Powered Short
Connector: 10 pin industrial duty latching, sealed NEMA 4 & 12, IP65. Optional MS3102 10 pin, Pigtail Cable, or Latching connector on cable extension

ELECTRICAL CONNECTIONS

Signal	Connector Pin	Pigtail Cable	MS 3102E18-IT#
Common	1	Black	A
B	2	Green	E
A	3	Blue	D
N/C	4	Violet	C
Alarm †	5	n/a	F
Vcc (5-24 VDC)	6	Red	B
B̄	7	Yellow	H
Ā	8	Gray	G
N/C	9	Orange	I
Shield	10	Braid	J

N/C= No connection

† Alarm not available with Pigtail cable. See Ordering Information

MECHANICAL

Shaft Speed: 7,000 RPM, max.
Mounting Configuration: 8.5" 180C face mount for NEMA MG1 standards
Housing Material: Cast Iron
Sensor Module Material: Stainless Steel
Acceleration Rate: 3600 rpm/sec max
Shaft Length Required: 2.88" min
Radial Air Gap:
1200PPR or lower:
 0.075", +0.015" / -0.070"
Above 1200PPR:
 0.050", +0.015" / -0.040"
Allowable Shaft End-Play: ±0.150"
Allowable Shaft Runout: 0.005" TIR

ENVIRONMENTAL

Operating Temperature Range: -40°C to +100°C
Storage Temperature Range: -40°C to +125°C
Humidity: 100% RH
Shock: 200 G's Min.
Vibration: 18 G's @ 5-2000 Hz spectrum

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Ordering Information

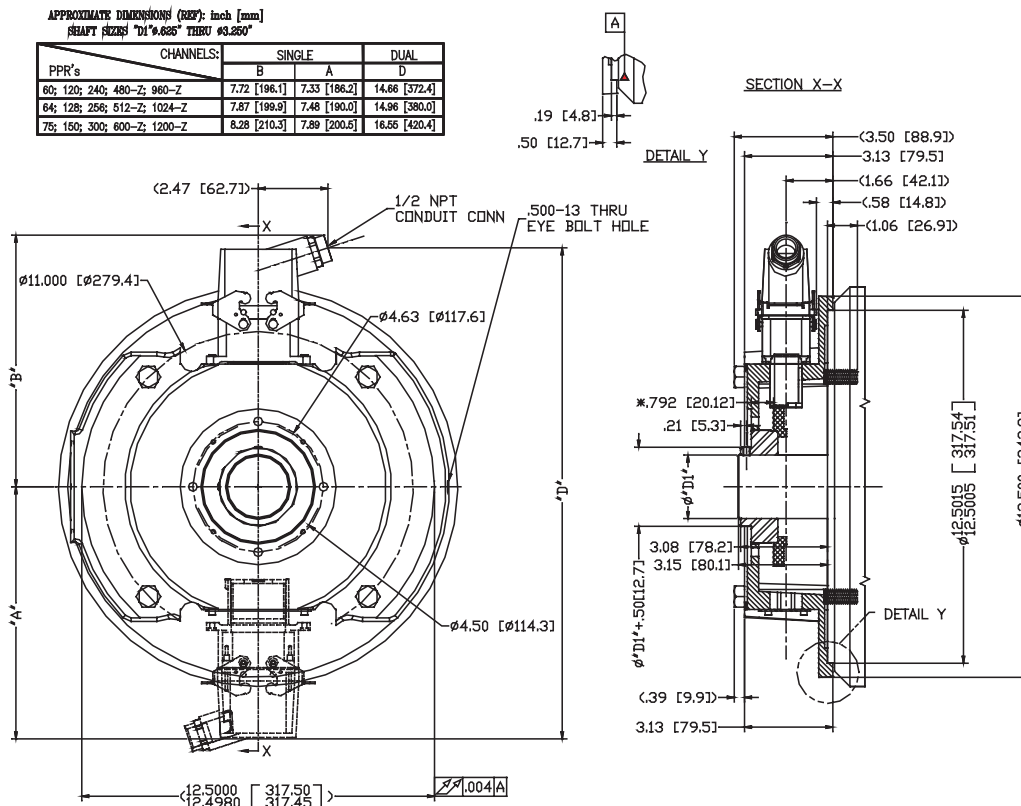
To order, complete the model number with code numbers from the table below:

Code 1: Model	Code 2: PPR	Code 3: Index	Code 4: Shaft Size	Code 5: Electrical Output	Code 6: Termination		
RT1□□□□□□□□□□□□□□□□							
Ordering Information							
RT1 RIMTach 1250 Direct Motor Mounting on NEMA 12.5" Flange	0060	0480	L No Index Z With Index Signal Output	V04 0.625"	1 One sensor module 5-26VDC Line driver output 2 Two sensor modules 5-26VDC Line Driver Output	C Latching Industrial Connector with 1/2" NPT M 10 pin MS Connector P 18" Pigtail Cable Q Latching industrial connector on 18" cable	
	0064	0512		V05 0.875"			V13 1.875"
	0075	0600		V06 1.000"			V14 2.000"
	0120	0960		V07 1.125"			V15 2.125"
	0128	1024		V08 1.250"			V16 2.250"
	0150	1200		V09 1.375"			V17 2.375"
	0240	1920		V10 1.500'			V18 2.500"
	0256	2048		V11 1.625"			V19 2.875"
	0300	2400		V12 1.750"			V20 2.625"
				Additional shaft sizes available, consult factory. End Of Shaft Mounting for GE and Similar Motors Available.			

DIMENSIONS [mm]

APPROXIMATE DIMENSIONS (REF): inch [mm]
SHAFT SIZES "D1" 9.625" THRU 9.380"

PPR's	CHANNELS:		
	B	A	D
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 [199.0]	7.48 [190.0]	14.96 [380.0]
75; 150; 300; 600-Z; 1200-Z	8.28 [210.3]	7.89 [200.5]	16.55 [420.4]



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