

RIMTach SERIES RT8

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**



NEW For 2011!



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental
Pulses per Revolution: 240 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: 2.5" 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

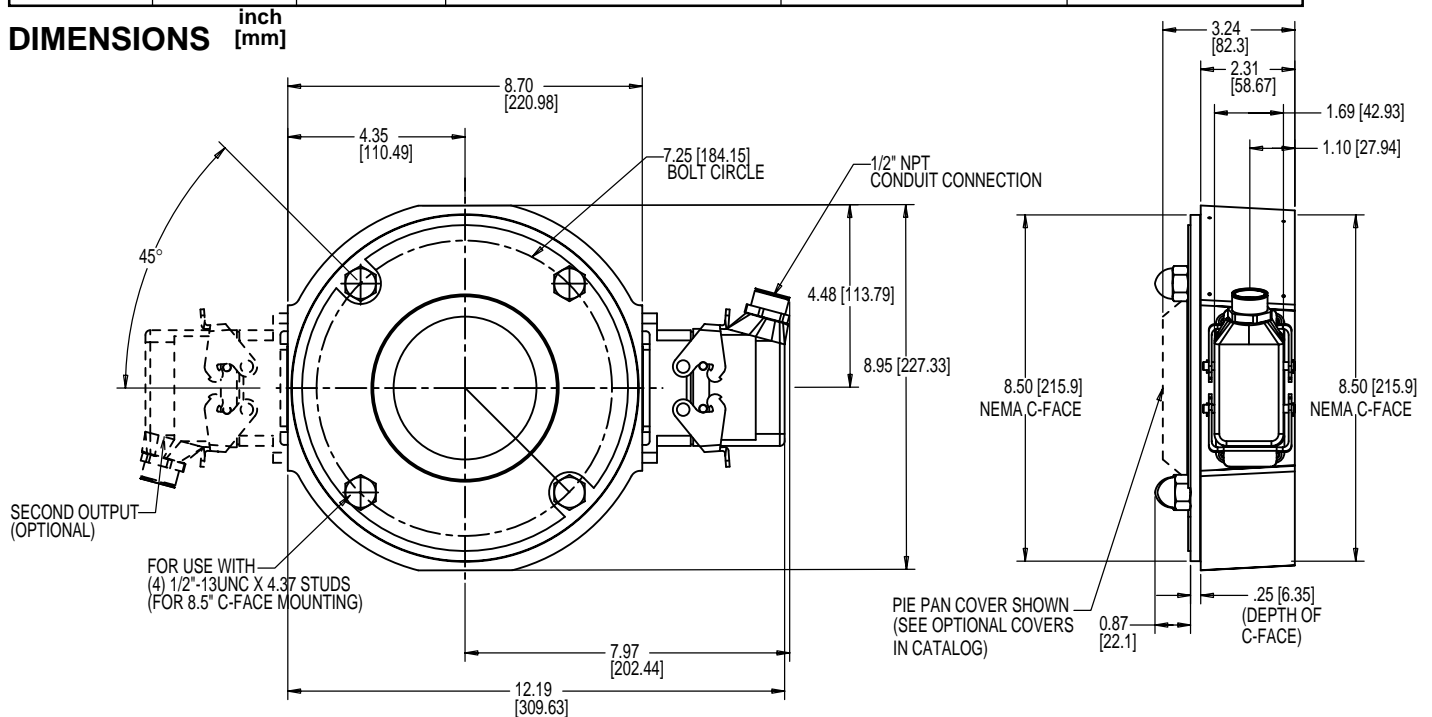
Ordering Information

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: Electrical Output	Code 6: Termination
RT8	□□□□	□	□□□□	□	□

Ordering Information						
RT8 RIMTach 8500 Heavy Duty Encoder	0120 0128 0150 0240 0256 0300 0480 0512	0600 0960 1024 1200 1920 2048 2400	L No Index	V04 5/8" V05 7/8" V06 1.00" V07 1-1/8" V09 1-3/8" V10 1-1/2" V11 1-5/8" V12 1-3/4" V13 1-7/8" V14 2.00" V15 2-1/8" V16 2-1/4" V17 2-3/8" V18 2-1/2" V19 2-7/8" Additional shaft sizes available, consult factory End Of Shaft F01 1-1/8" EOS F06 2-1/8" EOS F08 2-3/8" EOS F10 2-7/8" EOS	1 5-26VDC in, 5-26VDC Line Driver out (IC-WE), Single output 2 5-26VDC in, 5-26VDC Line Driver out (IC-WE), Dual output	C Latching Industrial Connector with 1/2" NPT M 10 pin MS Connector P 18" Pigtail (Not available with Alarm output) Q Latching industrial connector on 18" cable

DIMENSIONS inch [mm]



Worldwide Brands: NorthStar™ • Acuro™ • Dynapar™ • Hengstler™ • Harowe™

DYNAPAR™
 INNOVATION - CUSTOMIZATION - DELIVERY
WWW.DYNAPAR.COM
 Headquarters: 1675 Delany Road • Gurnee, IL 60031-1282 • USA

Customer Service:
 Tel.: +1.800.873.8731
 Fax: +1.847.662.4150
custserv@dynapar.com

Technical Support
 Tel.: +1.800.234.8731
 Fax: +1.847.662.4150
northstar.techsupport@dynapar.com

European Sales Representative
 Hengstler GmbH
 Uhlandstrasse 49, 78554 Aldingen
 Germany
www.hengstler.com