RIM Tach 6200

- *Foot mounted or with accessory bracket it is ideal for close coupled, belt, or wheel driven setups*
- *Extra severe duty bearings for a longer encoder life*
- *Stainless steel and cast iron construction*
- *Resolutions up to 2048 PPR with optional index pulse*

CE
EN 61326

APPLICATION/INDUSTRY

The RIM Tach® 6200 is specifically designed to meet the needs of process industries, providing the most reliable, mechanical, electrical, and environmental features available in digital tachometers today.

DESCRIPTION

Featuring rugged, Mill Duty Construction, the durable RIM Tach ® 6200 was designed for hostile environments. The mill duty, cast iron construction of the 6200 accepts stainless steel sensor modules with patented magnetoresistive technology. The outputs are available as either single or dual outputs and are completely isolated from one another. The modular design features extra severe duty bearings (1.875" OD) to ensure longer life under heavy loads.

The patented Magnetoresistive technology of the Rim Tach ® 6200 is incorporated into a heavy duty, one piece sensor module, with encapsulated surface mount electronics. These advanced modules are immune to common mill contaminants (water, oil, grease, dirt, shock, and vibration) and overall harsh environments. This state-of-the- art technology allows for much higher resolutions providing resolutions up to 2048 pulses per revolution. With the addition of a RIM Tach ® Shaft Grounding Brush, induced shaft currents "drain" away, preventing premature material weakening of large AC and DC motor bearings, and their consequent failure.

Standard mill duty latching connectors provide ease of installation. These sealed connectors are simple to wire by inserting the stripped conductor in the plug and tightening the screw terminals. There is no need to field solder or to struggle with a crimp pin. The unit easily mounts on a standard NEMA 56 C face (4.5") and requires no gap adjustments. The sensor module is very easy to change, just remove four screws and slide the new sensor module in place.

FEATURES AND BENEFITS

- Rugged Mill Duty Construction
- Easy Installation
- Reliable Magnetoresistive sensor unaffected by common contaminants
- Sensor modules for fast and easy field service

SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental
Pulses per Revolution: 60-2048
Phasing Sense: A leads B for Counter-Clockwise rotation (CCW) viewing encoder-mounted end
Quadrature Phasing: 90° ± 22°
Symmetry: 180° ± 54°
Index: 270° gated to falling B edge

ELECTRICAL

Input Voltage Requirement: 5-15 or 15-26 Volts DC
Current Requirement:
With Electrical Option L: 45 mA typical per sensor module plus line driver load
With Electrical Option R: 65 mA typical per sensor module plus line driver load
With Electrical Option 5: 65 mA typical per sensor module plus line driver load
Output Signals:
With Elec Option L: 5-15 V Line Driver, 150mA
With Elec Option R: 15 V Line Driver, 150mA
With Elec Option 5: 5V Line Driver, 150mA
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
Mounting Configuration: 4.5" [115mm] diameter, 56 C motor face or accessory flange to meet NEMA MG1-4 standards; foot mount with 4 slotted bolt holes
Housing Material: Cast Iron/Stainless Steel
Acceleration Rate: 3600 rpm/sec max
Shaft : 0.625"[16mm] diameter with 1.87"[48mm] long, 3/16"[5mm] square-parallel key. Optional double ended shaft and optional 14 mm shaft with metric key
Axial/Radial Loading: 50 lbf axial, 50 lbf radial

ENVIRONMENTAL

Operating Temperature Range: -40°C to +70°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

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
Z̄ *	9	Orange	I
Shield	10	Braid	J

* Index (Z) optional. See Ordering Information

Specifications are for base models with standard features only unless otherwise noted. Specifications subject to change without notice in accordance with our DBS policy of continuous improvement. All product and brand names are trademarks of their respective owners. All rights reserved.
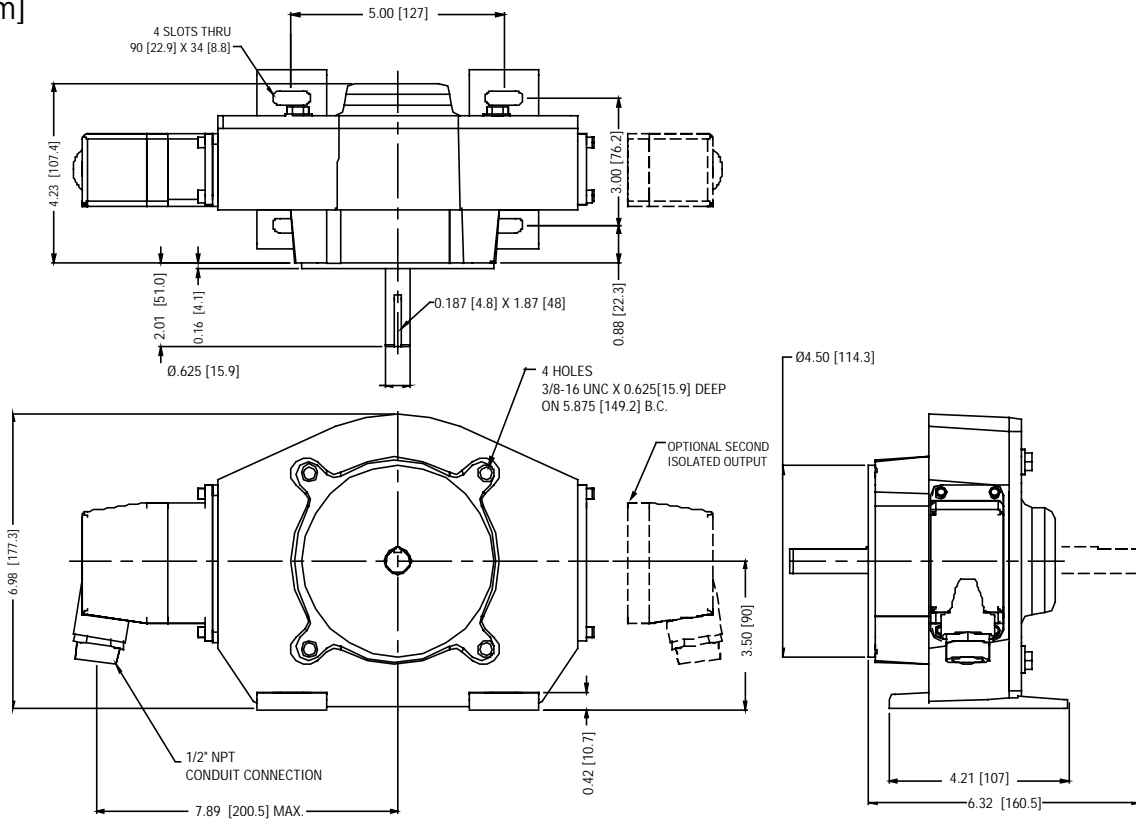
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NorthStar brand RT6200 Data Sheet (02/08)

DIMENSIONS
inches [mm]

ORDERING INFORMATION

Code 1: Model	Code 2: PPR	Code 3: Index	Code 4: Shaft	Code 5: Output	Code 6: Electrical	Code 7: Termination
R6	☐☐☐☐	☐	☐☐☐	☐	☐	☐
			Ordering Information			
R6 Foot Mount or Close Coupled	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 **Z** Differential Index (Z, Z̄)	**S** Single **D** Double	**1** Single **2** Dual (Isolated) Differential, bidirectional signals (A, Ā, B, B̄)	**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

Spare sensor module Use "**NS**" followed by **Code 1** (Model) & **Code 2** (PPR) & **Code 3** (Index) & **Code 6** (Electrical) & **Code 7** (Termination). Example:NSR60512ZLC
Spare Mating Connector: Use "**NS**" followed by **Code 1** (Model) & **Code 7** (Termination). Example: NSR6C
5 foot Interface Cable: **RIMCABLEDB10005**. Other Length: final 4 digits is length in 5 ft increments. Example RIMCABLEDB10065 is 65 feet.

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