

WIND 56

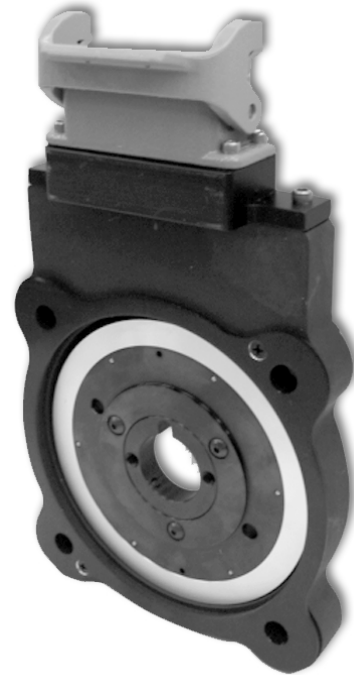
NorthStar™ brand

Key Features

- **Designed Specifically for Wind Turbine Pitch Control Units**
- **Reliable Performance from -40° to +130°C**
- **Brake-Friendly Design Resistant to Stray Magnetic Fields**
- **Bearingless Design for Maximum Life in the Toughest PCU Applications**
- **Mounts to Standard 4.5" C-Face Motors**
- **Redesigned Pulse Wheel for Crisp Signal Quality and Reduced Thermal Expansion**



NEW



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental
Pulses per Revolution: 1024
Phasing Sense: A leads B for Counter-Clockwise rotation (CCW) viewing encoder-mounted end
Quadrature Phasing: 90° ±22°
Symmetry: 180° ±54°
Index: 180° minimum

ELECTRICAL

Input Voltage Requirement: 5-24V DC
Current Requirement:
 80 mA typical plus line driver load
Output Signals:
 5-17 V Line Driver, 135mA
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 with gold pins

MECHANICAL

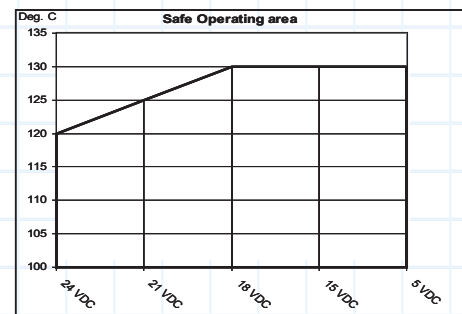
Shaft Speed: 5,000 RPM
Mounting Configuration: 4.5" 56C face mount for NEMA MG1 standards
Housing Material: Cast Aluminum
Acceleration Rate: 12,000 rpm/sec max
Shaft Length Required: 0.7" min
Allowable Shaft End-Play: ±0.045"
Wheel Bore: 1-1/8" with keyway
Weight: 2.8 lbs (1.3 kg);

Signal	Connector Pin
Common	1
B	2
A	3
Z	4
No Connection	5
Vcc (5-24 VDC)	6
\bar{B}	7
\bar{A}	8
\bar{Z}	9
Shield	10

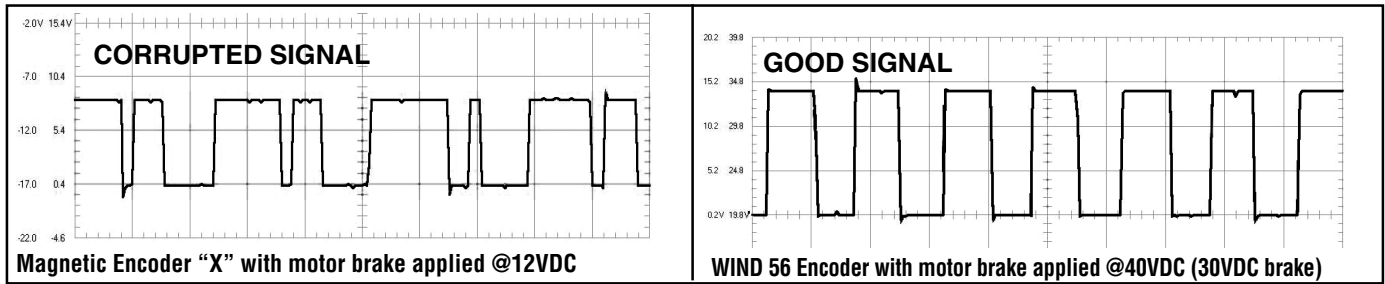
ENVIRONMENTAL

Operating Temperature Range:
 Standard: -40°C to +130°C
 See Table Below
Storage Temperature Range: -40°C to +130°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

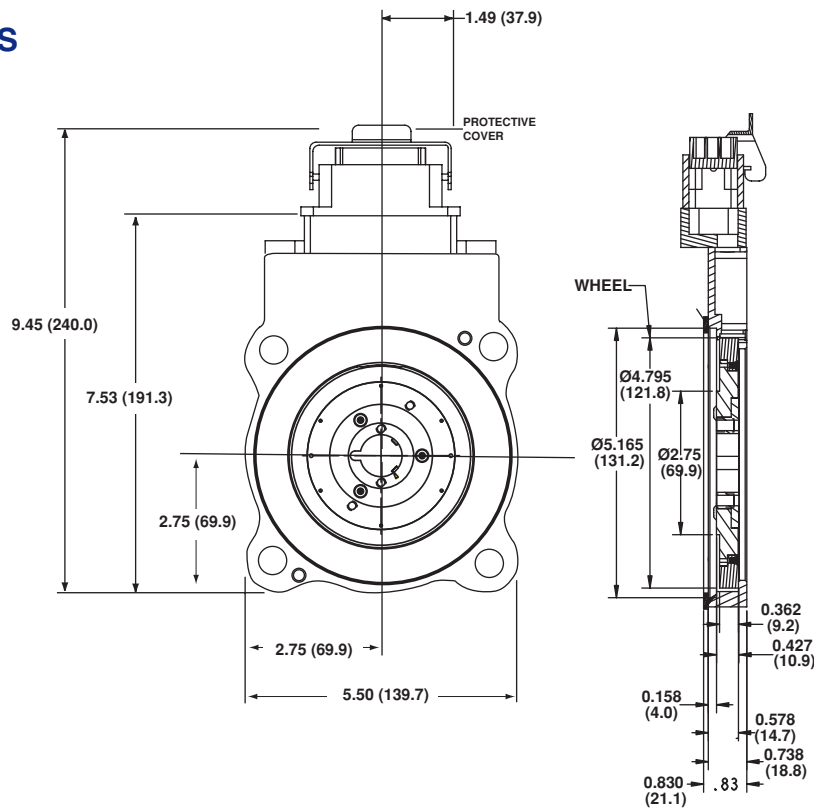
SAFE TEMPERATURE RANGE



SIGNAL QUALITY COMPARISON



DIMENSIONS
inches [mm]



ORDERING INFORMATION

Part Number: W561024AGE20; MRO Incremental Encoder for GE Motors Pitch Systems
W561024AMD20; MRO Incremental Encoder for Advanced Motors Pitch Systems



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