

SERIES HS56

NorthStar™ brand

Hollow Shaft Encoder

Key Features

- Hollowshaft Design with Heavy-Duty Bearings Ideal for TEFC AC Motor Mounting**
- Magneto-Resistive Technology**
- Accommodates Shaft Sizes from 5/8" to 1-1/8"**
- Stainless Steel and Anodized Aluminum Construction**
- Dual Isolated Outputs Available for Redundancy**

HD
Heavy Duty

CE
EN 61326-1

✓
RoHS



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental, Magnetic
Pulses per Revolution: 64-1024 PPR
Phasing Sense: A leads B for Counter-Clockwise rotation (CCW) viewing encoder-mounted end
Quadrature Phasing: 90° ± 22°
Symmetry: 180° ± 54°
Index: 270°, ungated (optional gated to falling B edge)
Number of Output Modules: Single or Dual

ELECTRICAL

Input Voltage Requirement: 5-15 or 5-26 Volts DC
Current Requirement:

With Electrical Option L: 45 mA typical per sensor module plus line driver load
 With Electrical Option V or 5: 65 mA typical per sensor module plus line driver load

Output Signals:

4428 Differential Line Driver: 150mA, sink or source
 IC-WE Differential Line Driver: 150mA, sink or source

Frequency Response: 0 - 120kHz Data & Index

Noise Immunity: Tested to EN61326-1

Electrical Immunity: Reverse polarity and short circuit protected

Connector: 10 pin industrial duty latching, sealed NEMA 4 & 12, IP65; MS connector or pig-tail

MECHANICAL

Bore Diameter: 5/8" to 1-1/8"
Mounting Configuration: Hollow Shaft mount with Anti-Rotation Tether
Shaft Speed: 3,600 RPM
Shaft Length Required: 2.0" min
Allowable Shaft End-Play: ± 0.150" (tether limit)
Allowable Shaft Runout: 0.015" TIR typical (rpm dependent)
Starting Torque: 7 in-oz
Acceleration Rate: 3,600 rpm/sec max
Housing Material: Hard Anodized Aluminum W/Stainless Steel Hub
Weight: 9.3 lbs

ENVIRONMENTAL

Operating Temperature Range: -20°C to +80°C
Storage Temperature Range: -40°C to +120°C
Shock (Sensor Module): 30 G's Min
Vibration: 18 G's @ 5-2000 Hz spectrum
Humidity: Up to 98% (non-condensing)

ELECTRICAL CONNECTIONS

Signal	Connector Pin	Pigtail Cable	MS 3102E18-IT#
Common	1	Black	F
B	2	Green	B
A	3	Blue	A
Z *	4	Violet	C
No Connection	5	—	E
Vcc +	6	Red	D
B	7	Yellow	I
A	8	Gray	H
Z *	9	Orange	J
Shield	10	Braid	G

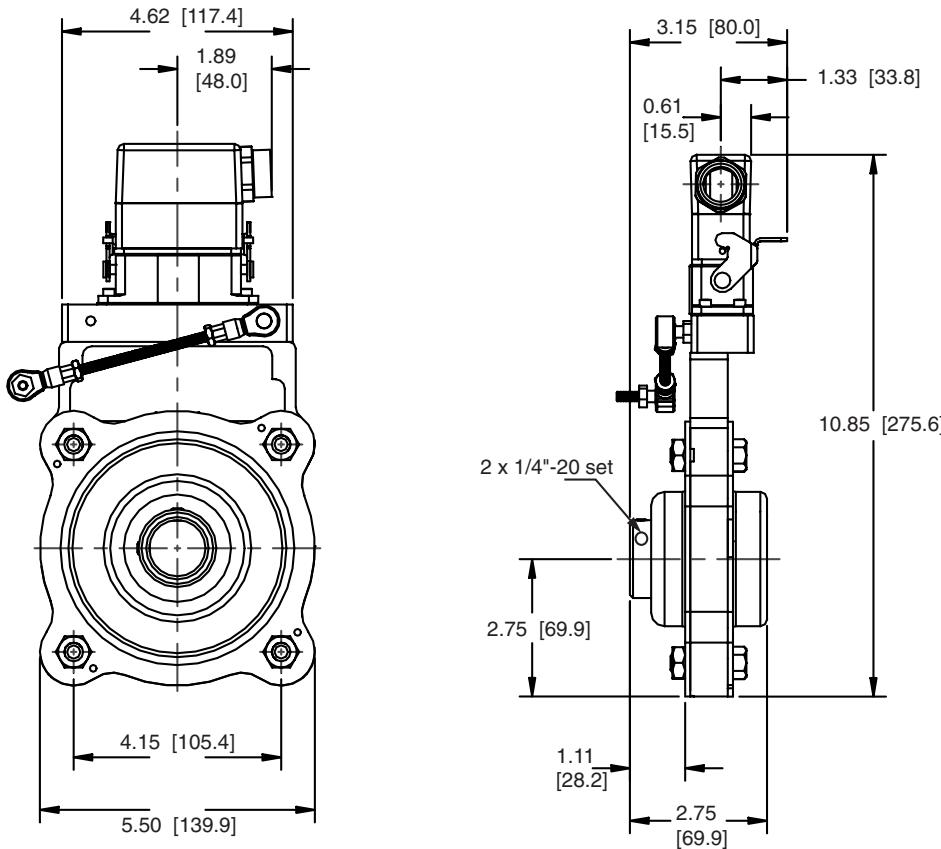
* Index (Z) optional. See Ordering Information

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: Termination	Code 6: Electrical
H	□	□□□□	□	□□□	□
Ordering Information					
H5 Hollow Shaft Mount	0064 0128 0256 0512	L No Index Available when Code 2 is 0512, or 1024 G Gated Index (Z, Z) Z Differential Index (Z, Z)	J04 5/8" J05 7/8" J06 1.00" J07 1-1/8" J55 20 mm	C Latching Industrial Connector with 1/2" NPT F Latching Industrial Connector without Mating Connector M 10 pin MS Connector P 18" Pigtail Cable Q Latching Industrial Connector on 18" Pigtail Cable R Latching Industrial Connector on 18" Pigtail Cable without Mating Connector	L 5-15V in, 5-15V Line Driver (4428) out V 5-26V in, 5-26V Line Driver (IC-WE) out S 5-15V in, 5V Line Driver (4428) out Differential, bidirectional signals (A, Ā, B, B̄)
HD Hollow Shaft Mount Dual Output	1024				

Note: See ACCESSORIES Section For Connectors, Spare Parts and Pulse Wheels

DIMENSIONS inch [mm]

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