SERIES HS60

NorthStar™ brand

Hollowshaft Encoder

HD Heavy Duty

Key Features

- **Industry-Leading 2-7/8" Hollowshaft Capability**
- **Multi-Stage Sealing for Wash-Down Applications**
- **Stainless Steel Shaft for Corrosion Resistance**
- **Dual-Split Clamping Collar for Positive Shaft Engagement**
- **Oversized Bearings for Long Service Life**
- **Magnetic Sensor Technology and Encapsulated Electronics Resist Moisture and Contamination**

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: Once per revolution
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: 1-1/8" to 2-7/8"
Mounting Configuration: Hollow Shaft mount with Anti-Rotation Tether
Shaft Speed: Labyrinth Shaft Seal: 3,600 RPM; V-Ring Shaft Seal: 1,000 RPM
Shaft Length Required: 2.36" min
Acceleration Rate: 3,600 rpm/sec max
Allowable Shaft End-Play: ± 0.150" (tether limit)
Allowable Shaft Runout: 0.015" TIR typical (rpm dependent)
Housing Material: Hard Anodized Aluminum W/Stainless Steel Hub
Weight: 14.7 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 3102E18-1T#
Common	1	Black	F
B	2	Green	B
A	3	Blue	A
Z *	4	Violet	C
No Connection	5	—	E
Vcc +	6	Red	D
$\bar{B}$	7	Yellow	I
$\bar{A}$	8	Gray	H
$\bar{Z}$ *	9	Orange	J
Shield	10	Braid	G

* Index (Z) optional. See Ordering Information

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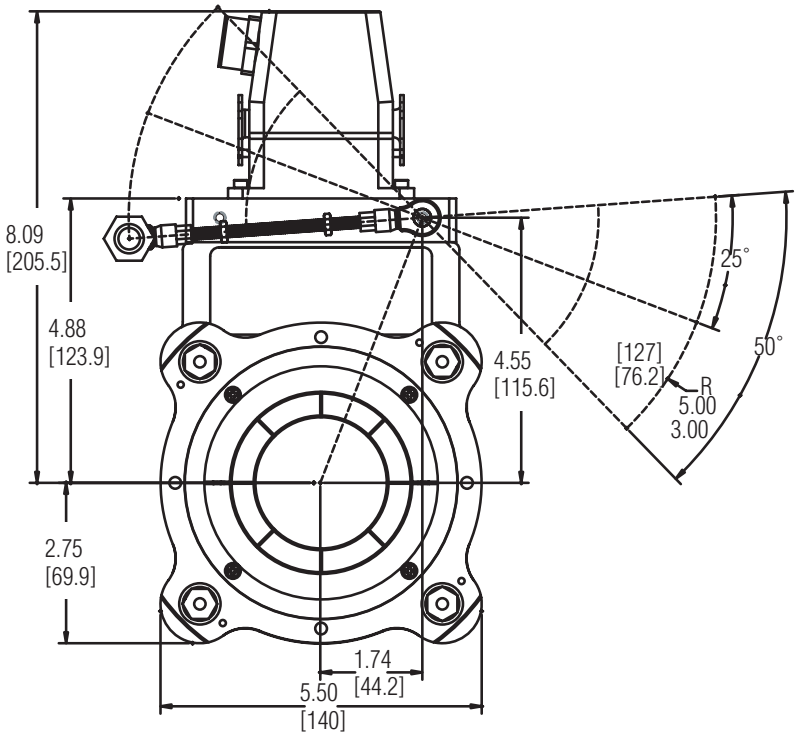
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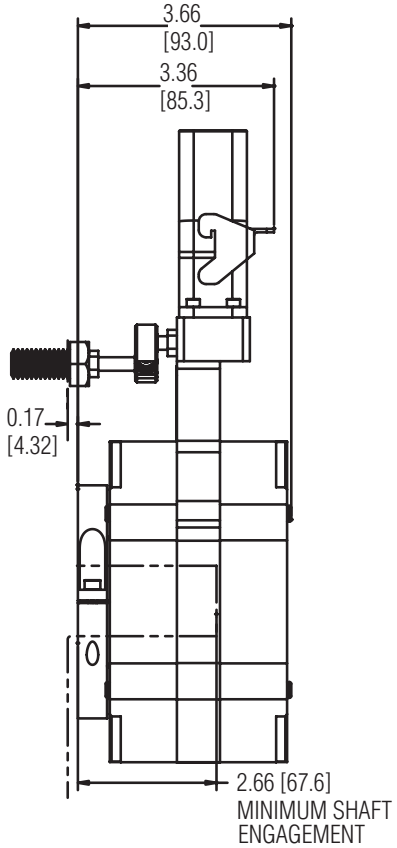
To order, complete the model number with code numbers from the table below:

Code 1: Model	Code 2: PPR	Code 3: Index	Code 4: Wheel Bore	Code 5: Termination	Code 6: Electrical	Code 7: Seal
□6	□□□□	□	□□□	□	□	□
Ordering Information						
H6 HS60 Hollowshaft, Single Output **D6** Hollowshaft, Dual Output	**0064** **0128** **0256** **0512** **1024**	**L** No index Available When Code 2 is 0512 or 1024 **G** With Gated, Differential Index **Z** With Differential Index	**T01** 1-1/8" **M45** 45 mm **T02** 1-3/8" **M50** 50 mm **T03** 1-5/8" **M55** 55 mm **T04** 1-7/8" **T05** 2.00" **T06** 2-1/8" **T07** 2-1/4" **T08** 2-3/8" **T09** 2-1/2" **T10** 2-7/8" Additional Bore Sizes Available, Please Consult Factory	**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** 5-15VDC In, 5-15V Line Driver (4428) Out **V** 5-26VDC In, 5-26V Line Driver (IC-WE) Out **5** 5-15VDC In, 5V Line Driver (4428) Out	**L** Labyrinth sealì **V** V-ring seal

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

DIMENSIONS inch [mm]





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