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SERIES HT55 NorthStar™ brand

Hollow Shaft Encoder

HD Heavy Duty

Key Features

- **Redesigned Circuitry for On-Board Diagnostics with LED**
- **Hollowshaft Design with Heavy-Duty Bearings Ideal for TEFC AC Motor Mounting**
- **Expanded Resolution up to 4096 PPR**
- **Accommodates Shaft Sizes from 1/2” to 2-7/8”**
- **Stainless Steel and Anodized Aluminum Construction**
- **Single or Dual Isolated Outputs Available with Field-Serviceable Connector**

CE RoHS

SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental, Magnetic

Pulses per Revolution: 256-4096 PPR

Phasing Sense: A leads B for CW shaft rotation viewing the shaft clamp end of the encoder

Quadrature Phasing: 90° ± 45°

Symmetry: 180° ± 54°

Index: Less than A/B pulse width

Number of Output Modules: Single or Dual

ELECTRICAL

Input Voltage Requirement: 5-26 Volts DC

Current Requirement: 120 mA typical per sensor module plus line driver load

Output Signals:

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

Frequency Response: 0 - 180kHz 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 Size: 1/2” to 2-7/8”

Mounting Configuration: Hollow Shaft mount with Anti-Rotation Tether

Max. Shaft Speed:
Shaft Size ≤ 1.250 = 5000 RPM,
Shaft Size > 1.250 = 3600 RPM

Torque:
Shaft Size ≤ 1.250: Typical 6 oz-in

Shaft Size > 1.250: Typical 15 oz-in

Shaft Length Required: 2.00” Minimum

Acceleration Rate: 3,600 rpm/sec max

Housing Material: Hard Anodized Aluminum, W/Stainless Steel Shaft.

Weight: 5 lbs.

ENVIRONMENTAL

Operating Temperature Range: -40°C to +85°C

Storage Temperature Range: -40°C to +120°C

Shock: 100 G’s Min.

Vibration: 20 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 (5-26 VDC)	6	Red	D
$\overline{B}$	7	Yellow	I
$\overline{A}$	8	Gray	H
$\overline{Z}$ *	9	Orange	J
Shield	10	Braid	G

* Index (Z) optional. See Ordering Information

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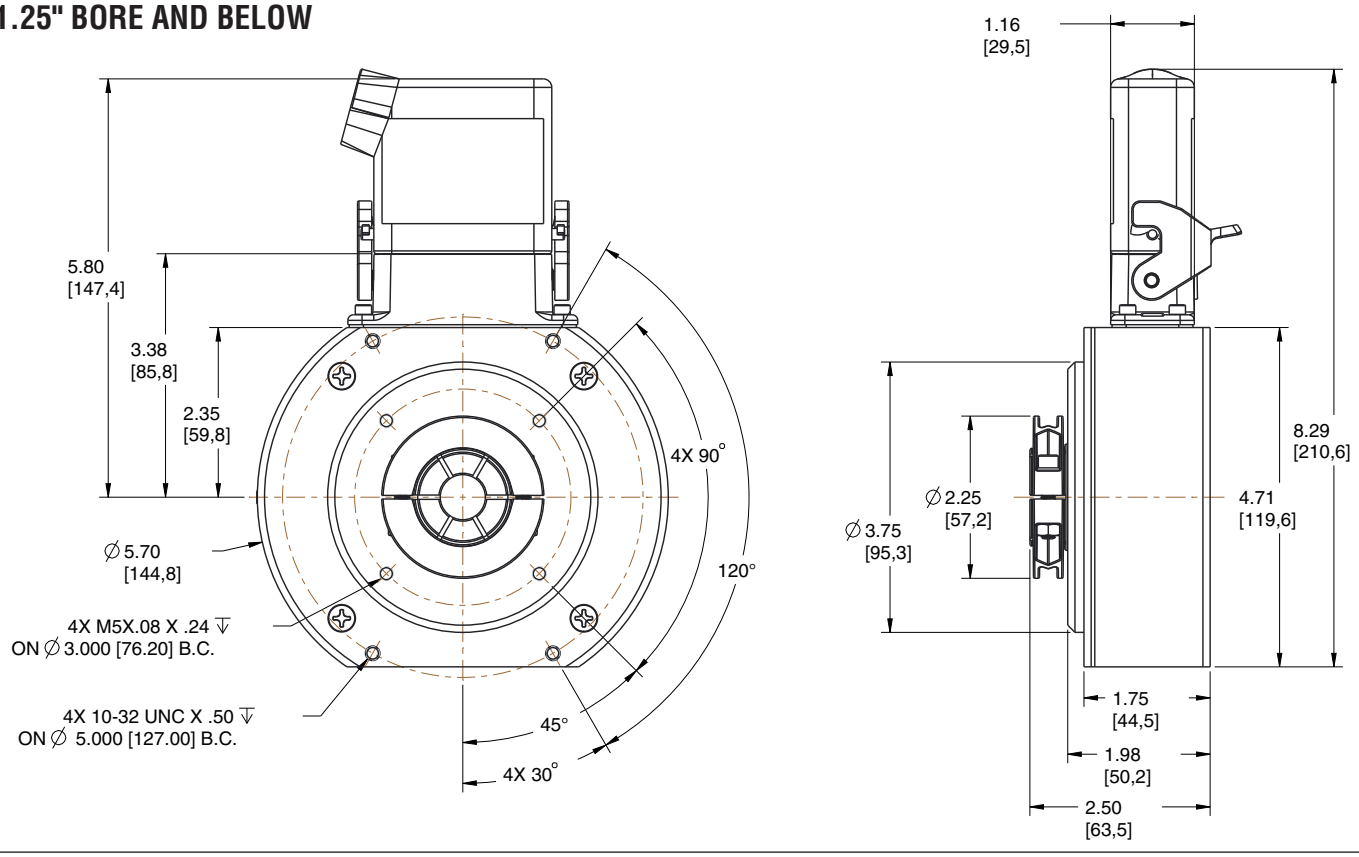
Ordering Information

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	Code 7: Output	Code 8: Fixing
□□□	□□□□	□	□□□	□	□	□	
			Ordering Information				
HT5 Hollow Shaft Mount	**0256** **0512** **1024** **2048** **4096**	**L** No Index **Z** With Differential Index	**J03** 1/2" **M12** 12mm **J04** 5/8" **M14** 14mm **J24** 3/4" **M15** 15mm **J05** 7/8" **M16** 16mm **J06** 1.000" **M18** 18mm **J07** 1.125" **M20** 20mm **J08** 1.250" **M25** 25mm **J09** 1.375" **M45** 45mm **J10** 1.500' **M50** 50mm **J11** 1.625" **M55** 55mm **J12** 1.750" **J13** 1.875" **J14** 2.000" **J15** 2.125" **J16** 2.250" **J17** 2.375" **J18** 2.500" **J20** 2.625" **J19** 2.875" For additional bore sizes available, please consult factory.	**C** Latching Industrial Connector with 1/2" NPT **M** 10 Pin MS Connector **P** 18" Pigtail Cable **Q** Latching Industrial Connector on 18" Pigtail Cable	**V** 5-26V in, 5-26V Line Driver (IC-WE) out **5** 5-26V in, 5V out Line Driver (IC-WE)	**1** Single **2** Dual (Isolated) Differential , bidirectional signals (A, $\bar{A}$, B, $\bar{B}$)	**Stamped Metal** Available when shaft is 1.25" or smaller **1** 4.5" C-Face Tether **2** 8.5" C-Face Tether **3** Slotted Tether **Swivel Rod** **A** Rod Tether

DIMENSIONS inches

1.25" BORE AND BELOW

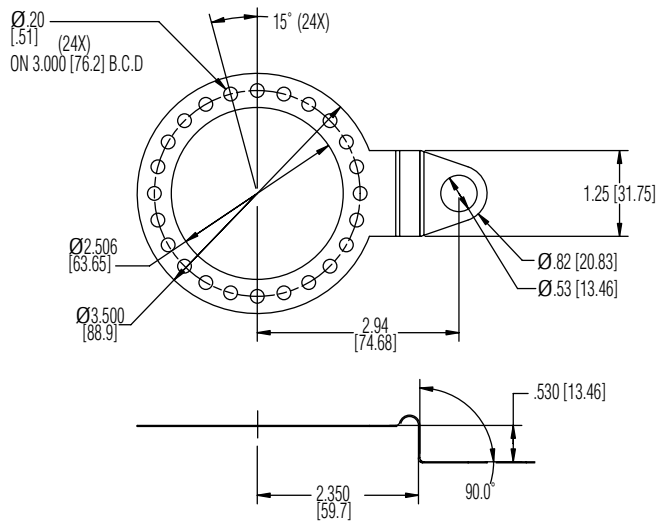


SERIES HT55

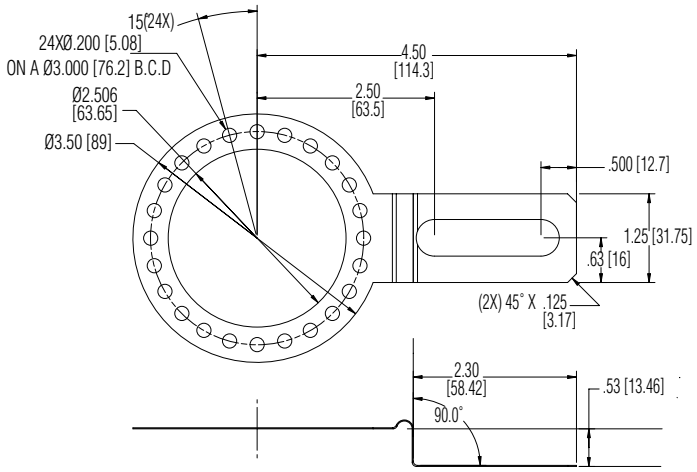
by DYNAPAR™

DIMENSIONS inches

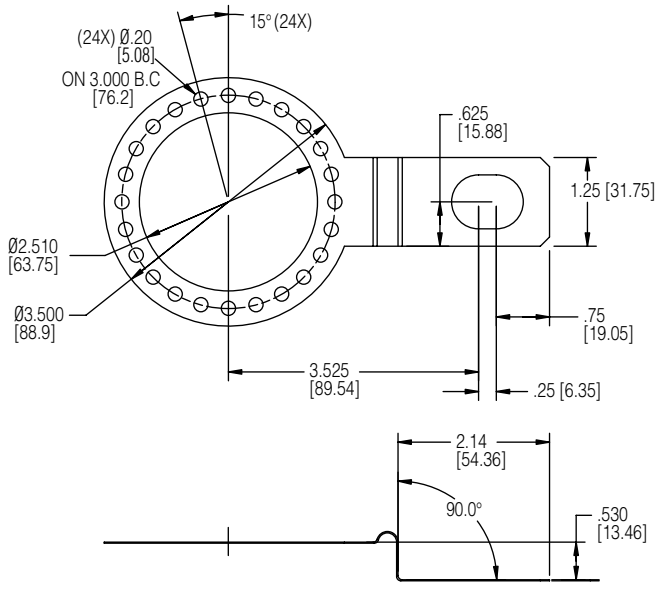
4.5" C-Face Tether



Slotted Tether



8.5" C-Face Tether



Tether Kit Number	Description
117788-0001	KIT, TETHER, HT55, SLOTTED
117789-0001	KIT, TETHER, HT55, NEMA 4.5
117790-0001	KIT, TETHER, HT55, NEMA 8.5
117791-0001	KIT, TETHER, HT55, ROD END

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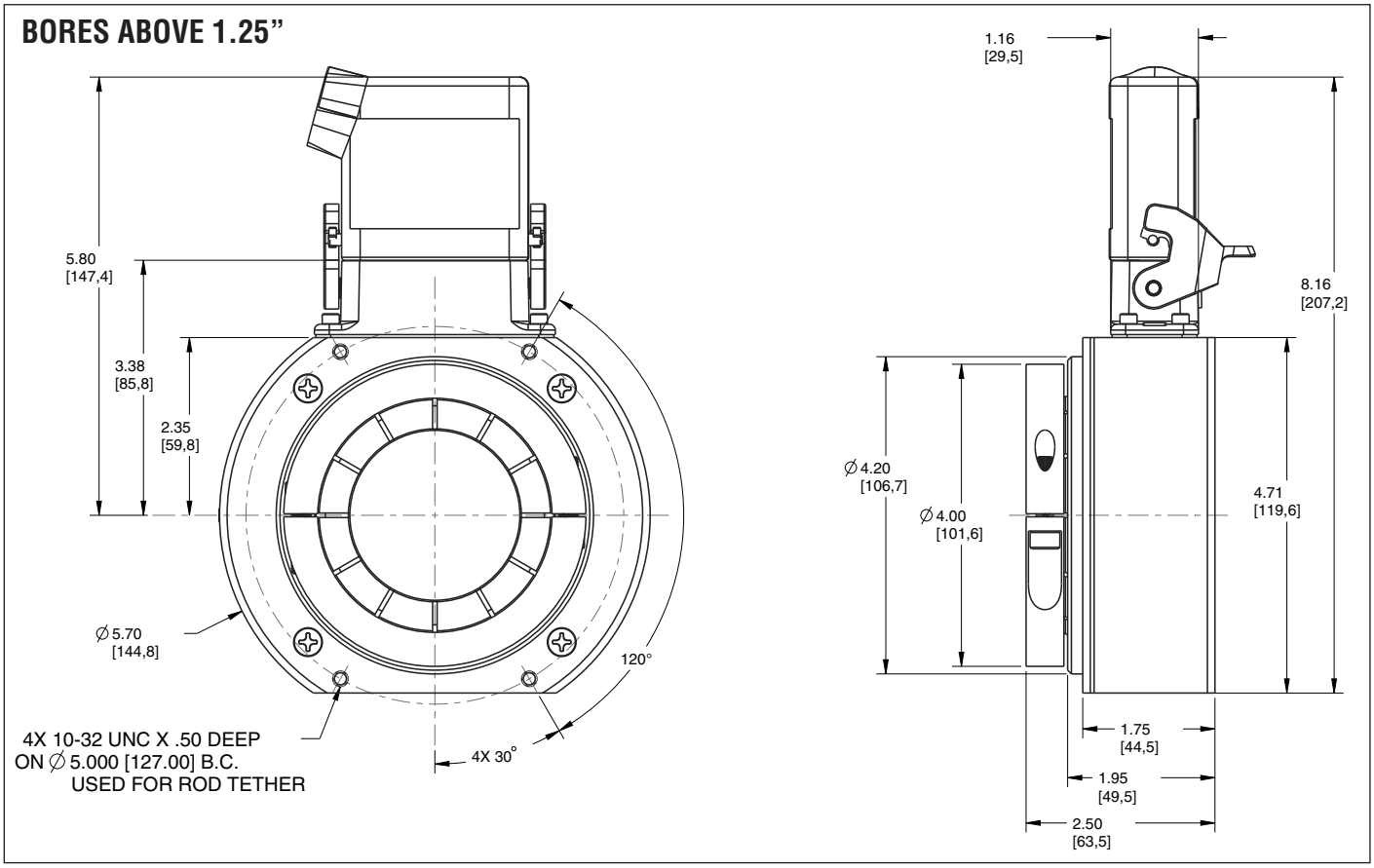
DIMENSIONS inches

BORES ABOVE 1.25”



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(21) 99607-2513
contato@intertechrio.com.br
intertechrio.com.br