

SERIES HSD44

NorthStar™ brand

Extreme Heavy Duty Encoder

Key Features

- O-Ring Housing with Pilot Seals Against Motor for the Ultimate in Protection
- Isolated Coupling Compensates for Motor Shaft Runout and Endplay
- Perfect for Off-Highway Vehicle Applications with High Shock and Vibration
- Unbreakable Code Disc

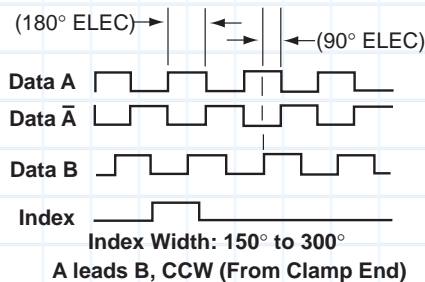


SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental
Resolution: 1024 PPR (pulses/revolution), Others at special order
Format: Two channel quadrature (AB) with Index (Z), and complementary outputs
Phase Sense: A leads B for CCW shaft rotation viewing the shaft clamp end of the encoder
Quadrature Phasing: $90^\circ \pm 15^\circ$ electrical
Symmetry: $180^\circ \pm 18^\circ$ electrical
Waveforms: Squarewave with rise and fall times less than 1 microsecond into a load capacitance of 1000 pf
Electrical Immunity: 50 Meg ohm minimum encoder shaft/frame to all connector pins

DATA AND INDEX Not all complements shown A shown for reference



ELECTRICAL

Input Power: 5-30VDC. 50 mA max., not including output loads.
Outputs: 5 -30 Volts DC, TTL
Frequency Response: 125 kHz (data & index)
Termination: 18" pigtail or 18" pigtail with MS Connector. See Ordering Information
Mating Connector: 10 pin MS, style MS3106A-18-1S (MCN-N6)

ELECTRICAL CONNECTIONS

Function	Pin	Wire Color
Sig. A	A	BRN
Sig. B	B	ORG
Sig. Z	C	YEL
Power +V	D	RED
Com.	F	BLK
Case	G	GRN
N/C	E	—
Sig. A-bar	H	BRN/WHT
Sig. B-bar	I	ORG/WHT
Sig. Z-bar	J	YEL/WHT

MECHANICAL

Mechanical Interface: Electrically isolated stainless steel shaft flex coupling
Mating Shaft Length: 0.47" to 0.625" (11.9mm to 15.9mm)
Coupling: 16mm, flexible
Shaft Speed: 6000 RPM, max.
Bearings: 6107
Bearing life: 5×10^8 revs at rated shaft Loading, 5×10^{11} revs at 10% of rated shaft loading. (manufacturers' specs)
Housing Material: Aluminum Alloy
Disc material: Stainless steel
Weight: 4 lbs.

ENVIRONMENTAL

Operating Temperature: -40 to 100°C
Storage temperature: -40 to 100°C
Shock: 400g, 6mSec
Vibration: 5-3000 Hz, 20g
Humidity: 98%, non-condensing
Enclosure Rating: NEMA 6

Ordering Information

Part Number

HSD44T1024A3A

HSD44T1024A3A-01

HSD44T1024A3K

HSD44T1024A3K-01

Description

Extreme Heavy Duty Encoder with 18 inch pigtail wire connections

Extreme Heavy Duty Encoder with 18 inch pigtail wire connections and extended pilot (.156")

Extreme Heavy Duty Encoder with 18 inch pigtail with 10 pin MS connector

Extreme Heavy Duty Encoder with 18 inch pigtail with 10 pin MS connector and extended pilot (.156")

Accessories

Part Number

HSD44ADAPTER45

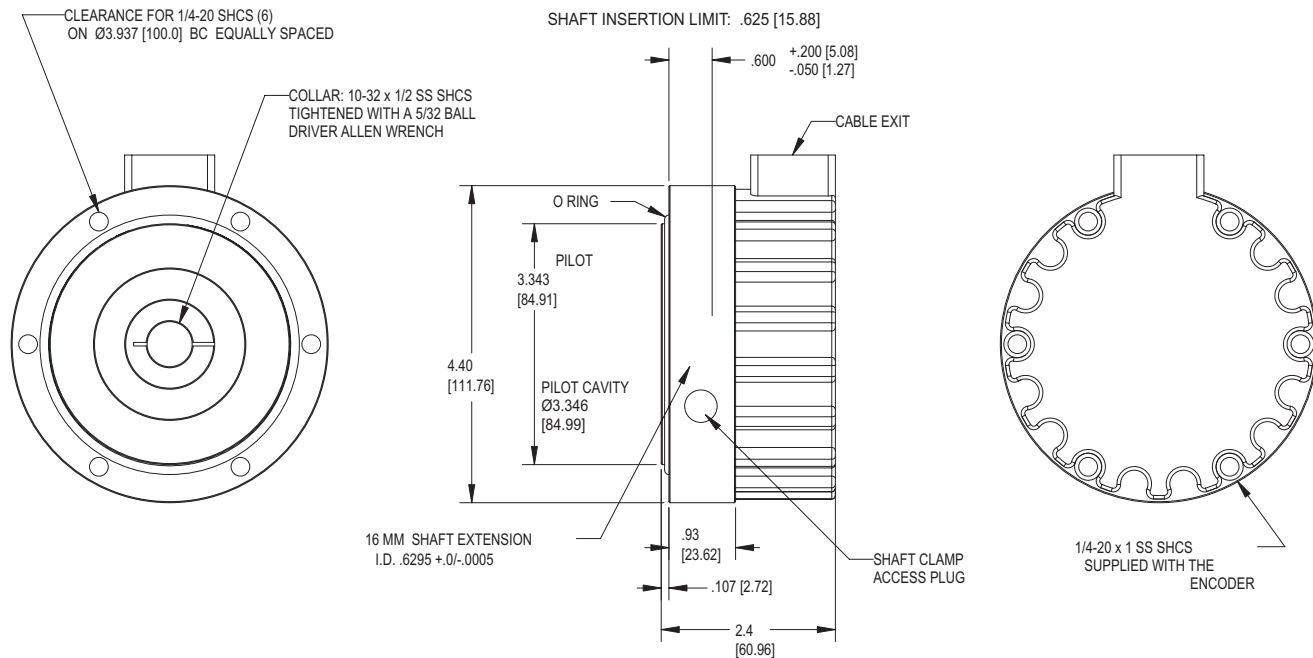
HSD44ADAPTER85

Description

4-1/2" NEMA Motor Adapter Plate

8-1/2" NEMA Motor Adapter Plate

DIMENSIONS (in. [mm])



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