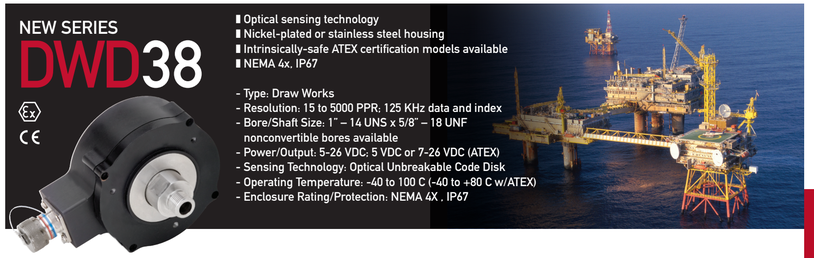
ENCODERS INDUSTRIALES

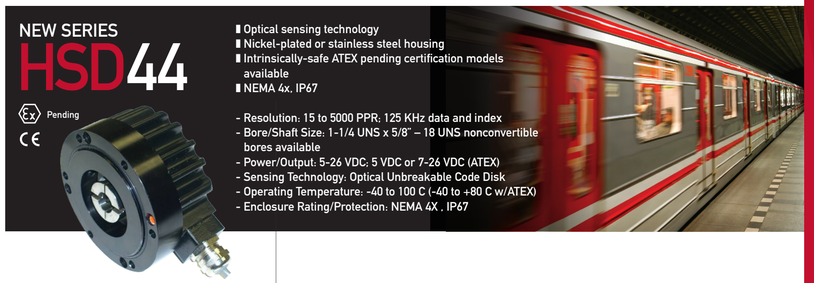
Oil & Gas

NorthStar products are a prominent brand name in the oil and gas industry with our rugged line of NorthStar Harsh Duty Optical encoders. Our DWD38 encoder is ideal for DrawWorks applications and corrosive environments that demand heavy duty wash down protection. Extremely robust, the DWD38 eliminated the use of a FRAGILE glass disc in favor of a Mylar and or stainless steel disc. This encoder is perfect for your tough application in the Oil and Gas Industry.



The HSD44 Heavy Duty Rail

The heavy duty rail proven NorthStar HSD44 optical encoder is designed to be a survivor. This anodized aluminum encoder can survive high levels of shock and vibration, wide temperature extremes and operating environment contaminants. The HSD44 can withstand the harshest outdoor environments and the toughest industrial applications.



CATALOGO DE ENCODERS ROBUSTOS

PARA CUALQUIER APLICACION INDUSTRIAL

The NorthStar signal splitter routes one encoder signal to multiple isolated locations.

The NorthStar signal switcher enables the use of one drive with two separate encoders.

The NorthStar brand encoder tester is an instrument used to evaluate signal presence and quality produced by any manufacturers digital encoder

CPL Series couplings provide maximum mechanical, thermal, and electrical protection for encoder shaft connections.

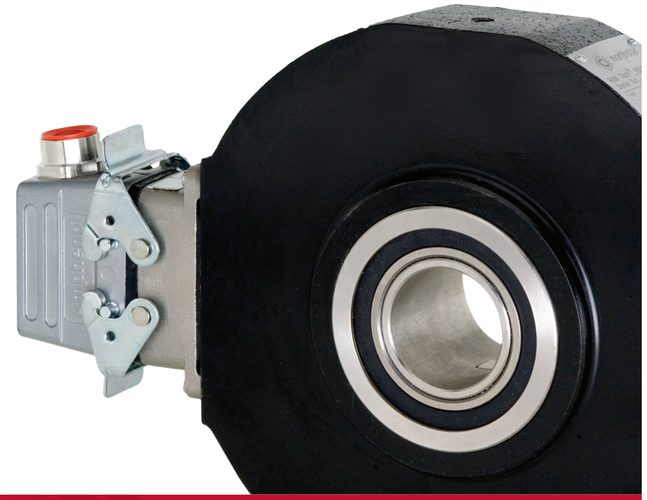
The FV3 converter converts the frequency output of the encoder to an analog signal for operating chart recorders, or for supplying velocity feedback in closed loop speed control systems.

NorthStar brand offers shielded cable with MS or M12 connector and cable clamps at one end and tinned leads at the other end.

Dynapar offers a wide variety of military-style connectors for use with different style encoders.

Dynapar offers NEMA C-face, 5PY and custom adapters to allow you to mount a variety of flange mounted encoders to 4-1/2" NEMA and DC accessory flanges.

Provide a low resistance, and electrical contact to the motor shaft to reduce or eliminate induced shaft currents in AC and DC motors.



DYNAPAR™
RESOLUTION YOU CAN COUNT ON

For additional information on NorthStar or a full-line catalog, contact your Dynapar representative at 1.800.873.8731 or visit our web site at: www.dynapar.com
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Satellite Locations:
North America: North Carolina, South Carolina, Connecticut, Massachusetts, New York, Canada, British Virgin Islands
Europe: United Kingdom, Italy, France, Germany, Spain, Slovakia
Latin America: Brazil
Asia: China, Japan, Korea, Singapore

CE References EN 61326 for magnetic units

Ex Meets intrinsically safe use, EEx ia IIB T4

SP c US LR86404, Class I, Division 2, groups • A,B,C,D and Class II, Div 2, Groups F,G -Signal switcher needs part number (RIMSSW)

1 800.873.8731
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NorthStar™

ENCODERS ROBUSTOS

CE
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Ex

ENCODERS OPTICOS Y MAGNETICOS PARA TODO TIPO DE ENTORNOS INDUSTRIALES Y QUIMICOS. DISPONIBLES CON CERTIFICACION ATEX.

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DYNAPAR™
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NorthStar™ ACURO® Dynapar™ HENGSTLER® Harowe™

NorthStar™

HARSH-DUTY OPTICAL INCREMENTAL ENCODERS
with Washdown Resistance & ATEX Certification

This new series unites sophisticated ASIC technology with the rugged performance you expect from NorthStar. Choose from a growing line designed to provide reliable and intrinsically safe operation in such applications as oil &gas, transportation, wind power, and severe-duty packaging. These exceptional encoders will not corrode and will withstand temperature extremes from -40 C to +100 C. In addition, they offer:

- Extreme shock and vibration resistance
- Special double-labyrinth sealing on select models
- Discs made of either 303 stainless or 100 degree Mylar for rigidity, unlike many encoders which use fragile and expensive glass as the disc material
- Bearings which are shielded not sealed for less running friction and heat build up as well as not using adhesive allowing them to be mechanically kept in place
- Extreme Corrosion and wash down resistant stainless and nickel plated models

MAGNETO-RESISTIVE INCREMENTAL ENCODERS & PULSE TACHS
Time-Tested & Proven Legacy of Rugged Performance

With magneto-resistive technology, NorthStar Bearingless encoders SLIM Tach and RIM Tach Series are unaffected by dirt, dust or dampness, making these your best choice for high-horsepower, large-shaft motors and extreme environments.

Types: Large Motor, C-Face Mount and Hollowshaft

- High performance velocity and position feedback in extreme environments
- Easy to install hollowshaft designs in sizes nearly twice as big as competitive models
- Highest-grade Industrial bearings in the industry
- Industry-leading resolution – up to 2048 PPR

WHEN RELIABILITY COUNTS!

Long a recognized brand and international leader in magnetoresistive technology and millduty industrial applications, NorthStar, a Dynapar brand, continues to produce innovative and highly dependable products for measuring speed and position in tough manufacturing environments.

For more than 30 years, NorthStar has specialized in meeting the needs of the industrial community with a proven and time tested line of heavy-duty, mill-duty magneto-resistive incremental encoders and pulse tachs. More recently, NorthStar expanded the line to include a new line of compact and washdown resistant, harsh-duty optical incremental encoders. All NorthStar encoders are designed to provide rugged, high performance signals in extreme application environments...when reliability counts (guaranteed).

HARSH-DUTY OPTICAL

NEW SERIES HD20

- Optical sensing
- Hard anodized aluminum, nickel plated or stainless steel housing
- Intrinsically-safe ATEX certification models available
- Optical unbreakable code disk
- Exceeds NEMA 4x and NEMA 6P and IP66/67

-Resolution: 1 to 3600 PPR; 125 KHz data and index
-Bore/Shaft Size: 3/8" DIA or 10mm DIA with flat
-Power/Output: 5-26 VDC; 5VDC or 7-26 VDC (ATEX)
-Sensing Technology: Optical Unbreakable Code Disk
-Operating Temperature: -40°C to +100°C (up to 80 C w/ATEX)
-Enclosure Rating/Protection: NEMA 4X, 6P and IP 66/67

NEW SERIES HD25

- Optical sensing
- Hard anodized aluminum, nickel plated or stainless steel housing
- Intrinsically-safe ATEX certification models available
- Optical unbreakable code disk
- Exceeds NEMA 4x and NEMA 6P and IP66/67

-Resolution: 1 to 5000 PPR; 125 KHz data and index
-Bore/Shaft Size: 3/8" DIA or 10mm DIA with flat
-Power/Output: 5-26 VDC; 5VDC or 7-26 VDC (ATEX)
-Sensing Technology: Optical Unbreakable Code Disk
-Operating Temperature: -40 to 100 C (-40 to +80 C w/ATEX)
-Enclosure Rating/Protection: NEMA 4X, 6P and IP 66/67

NEW SERIES HSD25

- Optical sensing
- Hard anodized aluminum, nickel plated or stainless steel housing
- Intrinsically-safe ATEX certification models available
- Optical unbreakable code disk
- Exceeds NEMA 4x and NEMA 6P and IP66/67

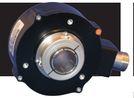
-Type: Hollowshaft
-Resolution: 1 to 3600 PPR; 125 KHz data and index
-Bore/Shaft Size: 3/8", ½", 5/8", ¾" or 10mm bore available
-Power/Output: 5-26 VDC; 5VDC or 5-26 VDC (ATEX)
-Sensing Technology: Optical Unbreakable Code Disk
-Operating Temperature: -40 to 100 C (-40 to +80 C w/ATEX)
-Enclosure Rating/Protection: NEMA 4X, 6P and IP 66/67

NEW SERIES HSD35

- Optical sensing
- Replaces Magcoder HS35M
- Cast housing aluminum; EPIC style connector for easy termination
- For industrial motor and machine applications at resolutions to 2500 PPR
- Choice of stamped metal or swivel rod tether available
- Protection from overvoltage, reverse voltage and output short circuits

-Type: Hollowshaft
-Resolution: 1 to 2500 PPR, quadrature, optional index (512 and above)
-Bore/Shaft Size: 1/4" to 1 1/4"; 6mm to 28mm bore"
-Power/Output: 5-15 VDC, 5VDC or 5-26 VDC; line driver
-Sensing Technology: Optical Unbreakable Code Disk
-Operating Temperature: -40 to 100 C
-Enclosure Rating/Protection: NEMA 4X/IP66

NEW SERIES HSD37



- Optical sensing
- Nickel plated or stainless steel housing
- Enclosure rating NEMA 4x, NEMA 6, IP66/IP67
- Intrinsically-Safe ATEX certification models available

-Type: Hollowshaft
-Resolution: 15 to 5000 PPR; 125 KHz data and index
-Bore/Shaft Size: 1/2"", 5/8", ¾", 7/8", 1inch, 10mm, 12mm, 14mm, 15mm, 16mm, 18mm, 19mm, 20mm bores available
-Power/Output: 5-26 VDC; 5 VDC or 5-26 VDC
-Sensing Technology: Optical Unbreakable Code Disk
-Operating Temperature: -40 to 100 C
-Enclosure Rating/Protection: NEMA 4/IP66

NEW SERIES HSD38

- Optical sensing
- Nickel plated or stainless steel housing
- Enclosure rating NEMA 4x, NEMA 6, IP66/IP67

-Type: Hollowshaft
-Resolution: 15 to 5000 PPR; 125 KHz data and index
-Bore/Shaft Size: 1/2"", 5/8", ¾", 7/8", 1inch, 10mm, 12mm, 14mm, 15mm, 16mm, 18mm, 19mm, 20mm bores available
-Power/Output: 5-26 VDC; 5 VDC or 5-26 VDC
-Sensing Technology: Optical Unbreakable Code Disk
-Operating Temperature: -40 to 100 C
-Enclosure Rating/Protection: NEMA 4X/IP66

MAGNETO-RESISTIVE

SLIM TACH BEARINGLESS

SLIM Tach® SL56

- Magneto-resistive sensing
- Hard Anodized Aluminum Housing
- Bearing-less, rugged
- Mounts directly to C-face motors
- Only 0.75" thick—ideal for tight machine configurations in harsh environments

-Size/Mounting: 4.5" 56 NEMA C-face
-Resolution: 64 to 2048 PPR, quadrature, optional index (512 and above)
-Bore/Shaft Size: 5/8" to 2.5" shaft diameter; up to 3.75" available
-Power/Output: 5-15VDC or 5-26VDC; line driver
-Sensing Technology: Magnetic Resonance (MR)
-Operating Temperature: -40 to 90 C (+120 C Optional)
-Enclosure Rating/Protection: NEMA MG1

SLIM Tach® SL85

- Magneto-resistive sensing
- Hard anodized aluminum housing
- Bearing-less for AC vector motors
- Provides higher resolution than traditional gear tooth ring kits
- Only 1.125" (35mm) thick
- Hardened encapsulated electronics

-Size/Mounting: 8.5" 180 NEMA C-face, thru-shaft, end-of-shaft and double C-face
-Resolution: 64 to 2048 PPR, quadrature, optional index (512 and above)
-Bore /Shaft Size: 5/8" to 2-7/8" up to 3.75" shaft diameter
-Power/Output: 5-15VDC or 5-26VDC; line driver
-Sensing Technology: Magnetic Resonance (MR)
-Operating Temperature: -40 to 90 C (+120 C Optional)
-Enclosure Rating/Protection: NEMA MG1

SLIM Tach® SL1250

- Magneto-resistive sensing
- Economical bearing-less design for 12.5" C face motors
- Occupies only 1.4" of motor shaft
- High power line driver for long cable lengths

-Size/Mounting: 12.5" C face motors, hollowshaft mount
-Resolution: Up to 1024 PPR quadrature, optional index (512 and above)
-Bore/Shaft Size: 5/8" to 2-7/8"; up to 3.75" available
-Power/Output: 5-15VDC or 5-26VDC
-Sensing Technology: Magnetic Resonance (MR)
-Operating Temperature: -40 to 90 C (+120 C Optional)
-Enclosure Rating/Protection: NEMA MG1

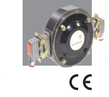
RIM TACH BEARINGLESS

SLIM Tach® RL67

- Magneto-resistive sensing
- Hard anodized aluminum housing
- Fits 6.75" machined recess on RPM AC or DC motors made by Reliance Electric.
- Low profile "pancake" design adds only 1.5" to motor length

-Size/Mounting: 4.5" dia, hollowshaft mount
-Resolution: 64 to 2048 PPR, quadrature, optional index (512 & above)
-Bore/Shaft Size: 5/8" to 2-7/8"; up to 3.75" available
-Power/Output: 5-15VDC or 5-26VDC; differential line driver
-Sensing Technology: Magnetic Resonance (MR)
-Operating Temperature: -40 to 90 C (+120 C Optional)
-Enclosure Rating/Protection: NEMA MG1

RIM Tach® 8500



- Magneto-resistive sensing
- For AC and DC drive control systems
- Cast iron and stainless steel construction
- Thin, pancake style mounts directly on the motor
- Bearing-less design increases reliability
- Dual sensors provide redundant signal in case of sensor failure
- Field replaceable sensor eliminates need to replace entire unit
- Innovative design requires no calibration

-Size/Mounting: Up to 8.5" face mount, thru-shaft or end-of-shaft
-Resolution: 60 to 1200 PPR
-Bore/Shaft Size: 5/8" to 2-7/8" and up to 3.75" shaft diameter available
-Power/Output: 5-15VDC or 5-26VDC; line driver
-Sensing Technology: Magnetic Resonance (MR)
-Operating Temperature: -40°C to +80°C
-Enclosure Rating/Protection: NEMA MG1

RIM Tach® 1250

- Magneto-resistive sensing
- Ideal for crane and hoist applications
- Ductile cast-iron enclosure protects against acid wash down

-Size/Mounting: 12.5" NEMA C-face, thru-shaft
-Resolution: 60 to 2048 PPR, quadrature, optional index (480 and above)
-Bore/Shaft Size: 5/8" to 2-7/8" up to 8" shaft diameter available
-Power/Output: 5-15VDC or 5-26VDC; line driver
-Sensing Technology: Magnetic Resonance (MR)
-Operating Temperature: -40 to 80 C
-Enclosure Rating/Protection: NEMA MG1

BEARINGED UNITS

RIM Tach® 6200

- Magneto-resistive sensing
- Stainless steel and cast-iron industrial tachometer
- Ideal for close-coupled, belt or wheel-driven setups in process environments

-Size/Mounting: Foot Mounted Shafted Unit
-Resolution: 60 to 2048 PPR, quadrature, optional index (480 and above)
-Bore/Shaft Size: 0.625"shaft diameter; single or double ended (standard)
-Power/Output: 5-15VDC or 5-26VDC; line driver
-Sensing Technology: Magnetic Resonance (MR)
-Operating Temperature: -40 to 70 C
-Enclosure Rating/Protection: NEMA MG1

SLIM Tach® HS56

- Magneto-resistive sensing
- Hollow-shaft mount with anti-rotation tether

-Size/Mounting: Hollowshaft mount
-Resolution: 64 to 2048 PPR
-Bore/Shaft Size: 5/8" to 1-1/8"
-Power/Output: 5-15VDC or 5-26VDC; differential line driver
-Sensing Technology: Magnetic Resonance (MR)
-Operating Temperature: -20 to 80 C
-Enclosure Rating/Protection: NEMA MG1

RIM Tach® HS85

- Magneto-resistive sensing
- Heavy cast-iron and stainless steel construction
- Most rugged hollowshaft encoder in the industry
- Heavy-duty double-sealed bearings for long life
- Interchangeable sensors for fast maintenance

-Size/Mounting: hollowshaft mount
-Resolution: 60 to 2048 PPR, quadrature, optional index (480 and above)
-Bore/Shaft Size: 5/8" to 2-7/8" up to 4.5" diameter available
-Power/Outputs: 5-15VDC or 5-26VDC; line driver
-Sensing Technology: Magnetic Resonance (MR)
-Operating Temperature: -20°C to +70°C
-Enclosure Rating/Protection: NEMA MG1