



ENCODERS FOR THE TOUGHEST APPLICATIONS!!!

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HENGSTLER

 **DANAHER**
SENSORS & CONTROLS

- **Qualitative – Fast Delivery – Reliable – Safe**
- **Long year experience in Green Energy, Oil/ Gas industry, steel and paper mills, offshore applications, other rough applications**
- **Broad encoder portfolio with extreme robust absolute and incremental encoders**
- **Your support to find the right solution**



ENCODERS FOR THE TOUGHEST APPLICATION

HENGSTLER

GREEN ENERGY



RAILWAY



CONSTRUCTION



OIL/ GAS



STEEL



HEAVY DUTY

WE EXCEED YOUR EXPECTATIONS

HENGSTLER

Options available:

- Absolutes or Incrementals
- Extreme shock and vibration resistance
- Magnetic or optical sensing
- Unbreakable code disc
- Stainless steel
- High protection class: IP69K
- Explosion proof (ATEX)
- Redundant Outputs
- Solid or hollow shaft
- Version with Integrated spiral flex coupling
- Electrically isolated shaft
- High Temperature range: - 40 ... + 100°C

Benefits:

- Exact positioning and / or speed measurement
- Highest safety and reliability
- Robust solution for different environmental requirements
- Highest robustness and reliability
- Resistant to harsh environments
- Submersible and wash down protection
- Use in hazardous environments
- Higher operational safety
- Mechanical flexibility
- Higher tolerances against axial and radial shaft misalignment and shocks
- ESD robustness
- Applicable in extreme environments

ACURO®-XR_{obust}



AX70/71 – RX70/71



RI 100



AC 59/61



HEAVY DUTY

NORTHSTAR– THE HEAVY DUTY BRAND

HENGSTLER

- Heavy Duty Incremental Encoders
- High Resolution Unbreakable Disks
 - Stainless Steel
 - Mylar
- High Resolution (1 - 5000 ppr)
- -40 to 100C Std, (120C optional)
- 6000 RPM
- Different housing materials
 - Stainless steel
 - Nickel
 - Hard anodized Aluminium
- NEMA 4X/IP66 (Minimum)
 - Face Riding Shaft Seals
 - Connector O-Ring Sealing
 - Double Labyrinth Sealed Housing
- Connector
 - MIL/ Amphenol or customized!



NorthStar™
By Hengstler

Available features:

- **NEMA 6/IP67**
- **ATEX Zertifikat**
- **Redundant output**



HEAVY DUTY

Solid or Hub shaft Heavy Duty Incremental

- Nickel or Stainless Steel Housing Available
- Protection class NEMA 4X, 6 / IP66, 67
- High load (up to 440 N)
- High shock and vibration resistance
- Resolution: up to 5000 pulses per rev
- ATEX EEx-ia certificate for intrinsically safe
- Redundant output

Fields of application:

- **Converting Machinery**
- **Material Handling**
- **Food & Beverage**
- **Wire line, any depth measurement**



HD20



HSD25

HD25



THE PRODUCTS - HSD35, HSD37, HSD38

HENGSTLER

Extrem Rugged Hollow shaft encoder

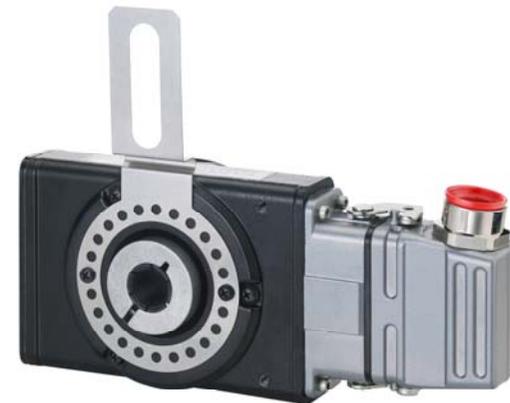
- Nickel or Stainless steel housing
- Shaft bore isolated against currents
- Protection class NEMA 4X, 6 / IP66, 67
- ATEX Certification Available (HSD37)
- Single or redundant output
- 5000 Imp/ rev (HSD37)
- 2500 Imp/ rev (HSD35)

Fields of applications:

- **Paper and Steel**
- **AC - Motors**
- **Oil/ Gas**
- **Packaging industry**
- **Food and Beverage**



HSD35



HSD37



HSD38



HEAVY DUTY



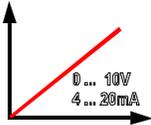
ROBUST



CANopen

BiSS
INTERFACE

SSI
ASYNCRON SERIALS INTERFACE



HEAVY DUTY

Absolute Heavy Duty

- Absolute encoder ST and MT
- Interfaces: SSI, BiSS, CANopen, Analogue
- 300 N axial and radial load
- 200 g shock resistance
- 20 g vibration resistance
- Submersible: Protection class up to IP69k
- High temperature range: -40...+100°C
- Compact design: 32 mm mounting depth
- Stainless steel (AR63)



Fields of application:

- **Wind Energy**
- **Solor tracker**
- **Construction Machinery**



HEAVY DUTY

SPECIAL HEAVY DUTY ENCODERS

HENGSTLER

RX70/71 – AX70/71



RI100



RI59 – AC59/61



HSD44



HEAVY DUTY

Explosion proof incremental and absolute

- Explosion proof enclosure „d“
- Code: Ex II G/D E Ex d II C T4/T6
- Robust design
- Highest working reliability
- Stainless steel version available
- Interfaces absolute: SSI, Profibus, CANopen, DeviceNet

Fields of application:

- DrawWorks
- Topdrive
- Pipe handling
- Chemistry



HEAVY DUTY

DrawWorks Harsh Duty Incremental

- Nickel or Stainless steel housing
- NEMA 4X, 6 / IP66, 67
- ATEX Certification available
- Single or Dual output
- Option: Namur Interface
- Removable hollow shaft extension



Fields of applications:

- **DrawWorks/ Oil-Platform**



HEAVY DUTY

Hollow-Shaft Specialty Harsh Duty Incremental

- Stainless – code disc
- NEMA 4X, 6 / IP66, 67, Sealed against the motor
- Flexible shaft coupling
- Electrically isolated shaft
- Motor mount with adapter plates
- Hard anodized isolated housing

Accommodates
motor shaft play!

NorthStar™
By Hengstler



HSD44

Fields of applications:

- **Traction motors**
 - Heavy Rail
 - Draw works
 - Hybrid Vehicles
 - Electric Vehicles
- **Special applications**



HEAVY DUTY

Hub Shaft Heavy Duty Incremental

- Special Encoder for big AC-motors and Generators
- Mechanical rugged design
- Unbreakable code disc
- Electrical robust: disruptive voltage up to 2,5 kV
- Wide voltage range: DC 5 ... 30V
- Integrated diagnostic system (readable error memory)
- Connection through terminal block or connector

Fields of application:

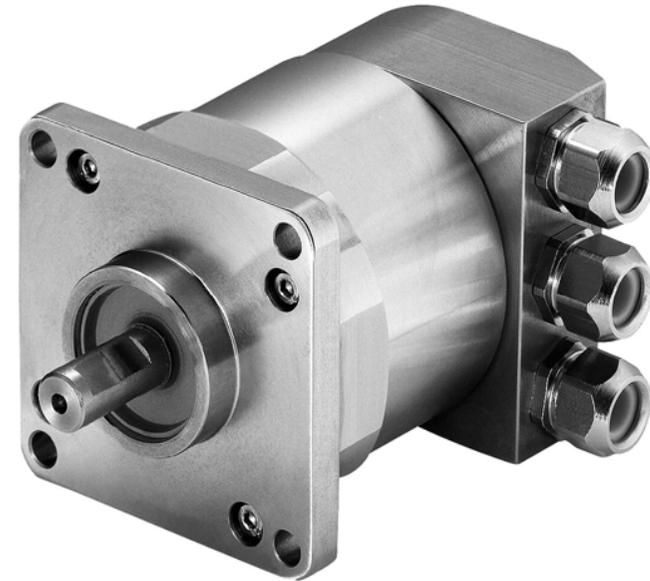
- **Generator**
- **Traction motors**
- **Big AC-Motors**



HEAVY DUTY

Stainless Steel incremental and absolute

- High corrosion resistance
- Compact and robust design
- Protection class: IP67
- Interfaces Absolute: SSI, BiSS, CANopen, Profibus, Interbus
- Version with Bus Cover



Fields of application:

- **Food & Beverage**
- **Offshore Applications**

HENGSTLER = HEAVY DUTY

Further Information under www.hengstler.com



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