ENCODER PRODUCTS COMPANY

Encoders for
MATERIAL HANDLING

Conveying & Warehouse Automation

CONVEYOR SYSTEMS
TR1, TR3, 25T, 15T

AGVS & AMRS
25T, 260, A36, A58, Draw Wire, Safety Encoders

AUTOMATED STORAGE & RETRIEVAL SYSTEMS
15T, 260, A36SB/HB

SORTATION EQUIPMENT
TR1, TR3, 702, 25T, A58SE/HE

PACKAGING & PALLETIZING EQUIPMENT
TR1, 15T, A36SB/HB, A58SE/HE

ENCODERS BUILT FOR DEMANDING ENVIRONMENTS

Encoders for Material Handling Systems

Encoders provide the motion intelligence that drives precision in material handling.

Where Encoders Are Used

Conveyor Systems

- ***Belt and Roller Conveyors:*** *TR1, TR3, and 25T*
- ***High-Speed Sortation Conveyors:*** *15T*
- ***Indexing Conveyors***

Automated Storage & Retrieval Systems (AS/AR)

- ***Crane Positioning***
- ***Rack Positioning***
- ***Bin Shuttle Systems***

Sortation Systems

- ***Tilt Tray Sorters***
- ***Crossbelt Sorters***

ENCODERS IN ACTION
See our real-world automation case study

Encoders for Material Handling Equipment

Modern warehouses increasingly rely on autonomous equipment to move materials efficiently.
Encoders provide the motion feedback required for accurate navigation, positioning, and load handling.

Where Encoders Are Used

Autonomous Mobile Robots (AMRs)

- ***Drive Motor Feedback:*** *25T and 260*
- ***Steering Position Feedback:*** *A36 and A58*
- ***Fork Height:*** *Draw Wire Encoder*

SIL2 **SIL3**
PLd **PLe** **CAT3**
Safety Certifications

Automated Guided Vehicles (AGVs)

- ***Drive Wheel Feedback:*** *Absolute Encoder*
- ***Steering Position Feedback:*** *CANopen Safety Encoders that meet SIL2 Safety Requirements*
- ***Fork Lift and Tilt Extension:*** *Draw Wire Encoder*
- ***Redundant Encoder Outputs for Reliability***

MOTION FEEDBACK FOR MODERN SUPPLY CHAINS

Why Engineers Choose EPC

Fast Lead Times

Custom Engineering

Responsive Engineering Support

ENCODERS BUILT FOR DEMANDING ENVIRONMENTS

Like other machinery, encoders used in harsh industrial environments can be exposed to contaminants such as high volumes of dust, an abundance of moisture, caustic chemicals, and physical damage.

4 Tactics for Surviving Harsh Environments

1. **Corrosion-Resistant Housings:** Use aluminum with powder-coated finish for general use, or stainless steel for corrosive or salt-rich environments.
2. **Encoder Isolation via Flexible Shafts:** Remote-mount encoders using flexible shafts to keep sensitive electronics clear of washdowns, sprays, and chemical exposure.
3. **Design Against Torsional Wind-Up & Liquid Migration:** Ensure proper cable layout, bend radius, and elevation to prevent moisture ingress and improve encoder lifespan.
4. **Remote Linear Feedback with Draw-Wire Assemblies:** Deploy draw-wire mechanisms paired with encoders to capture accurate linear motion from a protected distance.

Supported Communication Interfaces:

Industrial Ethernet Communication Protocols

EtherCAT · EtherNet/IP · PROFINET

Serial and Bus Communication Protocols

CANopen · SSI Synchronous Serial Interface · BiSS INTERFACE · IO-Link · SAE J1939

Functional Communication Interfaces
for Safety Applications in Sensitive and Hazardous Areas

CANopen safety easy to use · PROFIsafe · Safety over EtherCAT

Need Help Finding the Right Encoder?

EPC helps match the right encoder technology to your material handling application.

EPC's North American manufacturing facility and world headquarters in Sagle, Idaho, USA. Est. 1969

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