

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, A8SE/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

Sortation Systems

- Tilt Tray Sorters
- Crossbelt Sorters

Automated Storage & Retrieval Systems (AS/AR)

- Crane Positioning
- Rack Positioning
- Bin Shuttle Systems

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

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

SIL2 SIL3

PLd PLe CAT3

Safety Certifications

MOTION FEEDBACK FOR MODERN SUPPLY CHAINS

RACK POSITIONING

15S, 15H/T, TR1

BIN SHUTTLE SYSTEMS

260, A36S/H

CONVEYOR SYSTEMS

TR3, 25T, 702

DRIVE MOTOR

25T, 260

DRIVE WHEEL

A36S/H, A58S/H

STEERING POSITIONING

A36S/H, A58S/H

FORK HEIGHT

LCX

DRIVE MOTOR FEEDBACK

A36S/H, A58S/H

FORK LIFT & TILT EXTENSION

A36S/H, A58S/H

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



Serial and Bus Communication Protocols



Functional Communication Interfaces

for Safety Applications in Sensitive and Hazardous Areas



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

