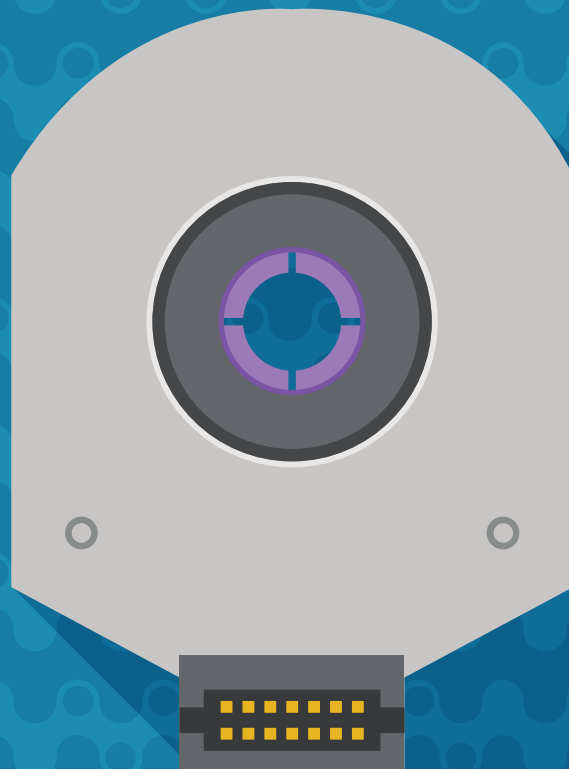


# Motion

*Incremental, Absolute & Commutation Encoders*

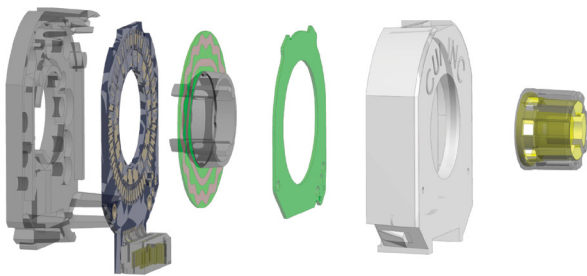


# REVOLUTIONIZING ENCODER TECHNOLOGY

Our line of rotary encoders includes modular, integral, and panel mount configurations featuring incremental, absolute, and commutation outputs. Highlighting this product group is our groundbreaking AMT encoder line based on capacitive technology, which delivers unmatched flexibility and ruggedness without tradeoffs.

## CAPACITIVE TECHNOLOGY

Our AMT series of modular encoders utilizes capacitive technology to provide unmatched durability, flexibility, and programmability in an encoder. Used for years in digital Vernier calipers, capacitive technology incorporates two patterns of bars or lines, with one set on the fixed element and the other on the moving element. As the encoder rotates, a proprietary ASIC counts these line changes and also interpolates to provide highly accurate position feedback.



### Features & Benefits

- Resistant to dirt, dust & oil
- High accuracy
- Low current draw
- Longer life
- Wide operating temperature range
- Enables a range of programmable features

## ENGINEERING TOOLS



### Product Spotlights

CUI's product spotlights review the working principles, unique features, and possible applications for modular, absolute, and commutation encoders that utilize capacitive technology.



### Video Library

Highlighting practical and technical applications, CUI's encoder video library provides engineers with a wealth of knowledge, assisting with installation, mounting, aligning, and AMT Viewpoint™ GUI use.



### Technical Papers

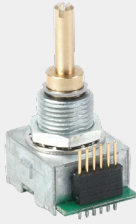
CUI's technical papers reveal the distinct benefits of utilizing capacitive encoders over alternatives, focusing on the reliability, cost, performance, and ruggedness gains that can be achieved in BLDC motors, robotics, IIoT applications, and more.

### AMT Viewpoint™



Supporting the innovative AMT encoder series is the AMT Viewpoint™ Graphical User Interface (GUI) that allows for an unprecedented level of visibility and control. Via the simple software interface, users are able to set and control a range of parameters, reducing development time and virtually eliminating tedious steps in the assembly process. Additionally, the software allows engineers access to a range of diagnostic data for quick analysis during design or while in the field.

# MOTION PRODUCT LINE



## Incremental Encoders

Resolutions from 10 ~ 80000 PPR

- Modular, panel mount, hollow shaft & shaft package types
- 2-bit quadrature, CMOS voltage, line driver, open collector & sine wave voltage output types
- Operating temperature ranges up to -40 ~ 105°C
- Axial, radial, horizontal & vertical orientations
- 0 ~ 13.2 Vdc input voltages
- 2.5 ~ 30 mm shaft lengths
- 1.5 ~ 12 mm shaft bore diameters
- 120 ~ 8,000 RPM max speeds
- Cable, header, PCB pin & solder hole termination types



## Absolute Encoders

Resolutions up to 14 Bit

- Modular, hollow shaft & shaft package types
- SPI, SSI, RS485, BCD, gray code, natural binary & TTL voltage output types
- Operating temperature ranges up to -40 ~ 125°C
- 3.3 ~ 26.8 Vdc input voltages
- 6, 10 & 16.5 mm shaft lengths
- 1.5 ~ 8 mm shaft bore diameters
- 6,000, 7,000 & 8,000 RPM max speeds



## Commutation Encoders

Resolutions from 48 ~ 4096 PPR

- Three phase U, V, W commutation signals
- High accuracy
- Resilient to dust, dirt & oil
- Accommodates 2 ~ 20 pole brushless motors
- CMOS voltage, commutation line driver, line driver & quadrature line drive output types
- Axial & radial orientations
- 4.5 ~ 5.5 Vdc input voltages
- Operating temperature ranges up to -40 ~ 105°C
- Compact design
- Low current draw

## GLOBAL STOCK AVAILABILITY

Our network of global distribution partners provides you with quick and easy access to our motion control products, ready to ship same day across the globe. This strong distribution presence provides our customers with peace of mind knowing that their project will be supported from prototype all the way to production by in-stock inventory and world-class supply chain programs.





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