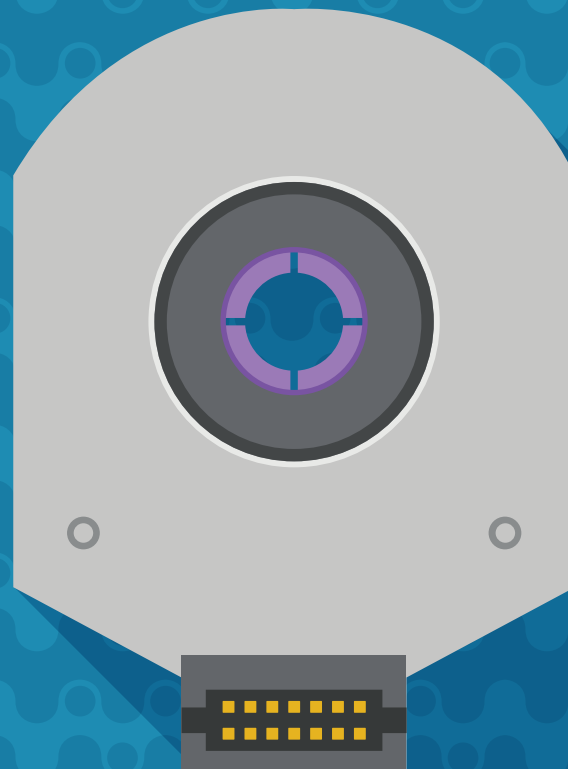


# **Motion**

*Rotary Encoders & Stepper Servo Motors*

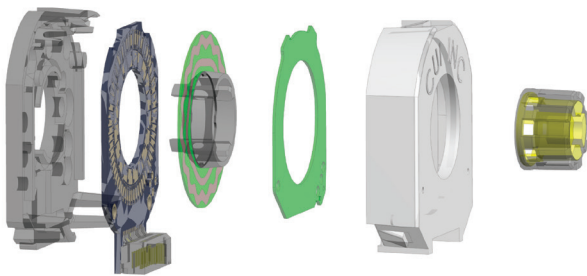


# REVOLUTIONIZING ENCODER TECHNOLOGY

Our line of rotary encoders and stepper servo motors offers a range of configurations to provide users with a highly reliable solution for almost any motion control application. 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 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



### CAD Model Library

CUI Devices' library of ready-made 3D models helps to streamline the design process, saving you precious time and resources. Users are able to view and download 3D models in all major mechanical CAD formats free of charge.



### Resources

Highlighting practical and technical applications, CUI Devices' resource library of videos, technical papers, and more provides engineers with a wealth of knowledge on encoders and motion control design.



### AMT Viewpoint™

Via the AMT Viewpoint™ GUI users can program a range of encoder parameters and access diagnostic data for quick analysis during design, allowing for an unprecedented level of visibility and control.

[View these and more helpful resources at www.cuidevices.com/resources](http://www.cuidevices.com/resources)



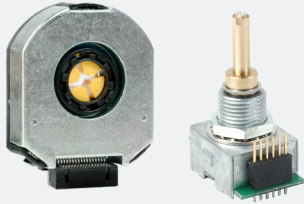
## Global Stock Availability

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.

# ROTARY ENCODERS

## Incremental, Absolute & Commutation Versions

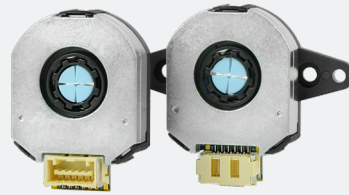
Our line of rotary encoders includes modular and panel mount configurations featuring incremental, absolute, and commutation outputs. These encoders equip users with a range of resolutions, shaft length and bore diameters, and output signal types to meet a variety of motion control needs.



### Incremental Encoders

Resolutions from 10 ~ 5120 PPR

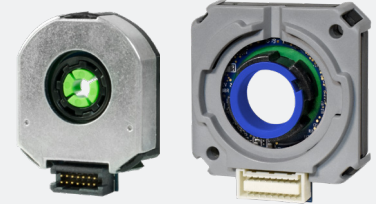
- Modular & panel mount package types
- 2-bit quadrature, CMOS voltage, line driver, open collector & voltage output types
- Operating temperature ranges up to -40 ~ 125°C
- Axial, radial, horizontal & vertical orientations
- 1 ~ 15.875 mm shaft bore diameters
- 0 ~ 10 Vdc input voltages
- 120 ~ 8,000 RPM max speeds
- 7.5 ~ 30 mm shaft lengths
- Cable, header, PCB pin & solder hole termination types



### Absolute Encoders

Resolutions up to 14 Bit

- Modular package type
- SPI, SSI & RS-485 interfaces
- Single-turn or multi-turn outputs
- Operating temperature ranges up to -40 ~ 125°C
- Axial & radial orientations
- 2 ~ 8 mm shaft bore diameters
- 3.8 ~ 5.5 Vdc input voltages
- 4,000 & 8,000 RPM max speeds
- Low current draw
- Compact design



### Commutation Encoders

Resolutions from 48 ~ 4096 PPR

- Three phase U, V, W commutation signals
- CMOS voltage, commutation line driver, line driver & quadrature line drive output types
- Operating temperature ranges up to -40 ~ 125°C
- Axial & radial orientations
- 2 ~ 15.875 mm shaft bore diameters
- 4.5 ~ 5.5 Vdc input voltages
- Accommodates 2 ~ 20 pole brushless motors
- Low current draw
- Compact design

# STEPPER SERVO MOTORS

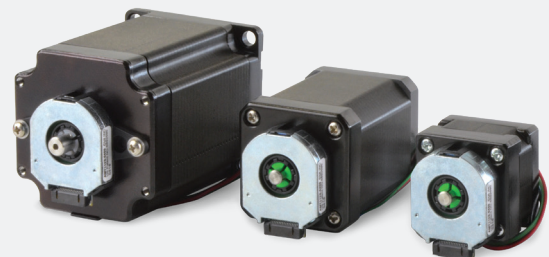
## All-in-One Motor and Encoder Solution

Available in compact NEMA 8, 11, 14, 17, and 23 frame sizes, this product segment pairs high performance stepper motors with our AMT incremental encoders, providing users with a highly reliable motor and motion control feedback solution in one convenient package.

### NEMA-AMT112S Series

#### CUI Devices AMT Encoder & Stepper Motor

- NEMA 8, 11, 14, 17, 23 frame sizes
- 3 ~ 270 oz-in (0.021 ~ 1.90 N-m) holding torques
- Provides closed-loop feedback for complete servo system
- 22 programmable incremental resolutions from 48 ~ 4096 PPR
- 1.8° step angle
- Digitally set zero position
- -20 ~ 50°C operating temperature range
- Patented capacitive encoder ASIC technology



# CUI DEVICES

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