



## JTEKT Encoders

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# High-Quality, Rugged Encoders

## Where can I use an encoder?

Encoders are used in all types of motion sensing applications, including machine tooling, semi-conductor positioning and multi-axis positioning. All Koyo encoders feature a reinforced aluminum diecast casing and come equipped with a two-meter cable or MS connector. Use the incremental encoders with our PLC high-speed counter modules<sup>1</sup> for accurate position monitoring and control. Or use our absolute encoders to monitor position with Gray code and standard PLC DC inputs.

## Why buy an encoder from us?

There are several distinct advantages to purchasing your encoder from AUTOMATIONDIRECT:

### Price

As with all of our product lines, our prices are often well below the list prices of traditional automation suppliers. Our direct business model allows us to operate more efficiently than other suppliers and pass the savings on to you.

### Quality

All encoders carry a 1-year warranty, and a 30-day money-back guarantee. If for any reason you are not satisfied with your purchase, send it back and we will refund your money.

## What is a modular kit encoder?

Modular encoders are bolt-on options for SureStep stand-alone dual-shaft motors and standard integrated motor/drives. Our kit encoders offer:

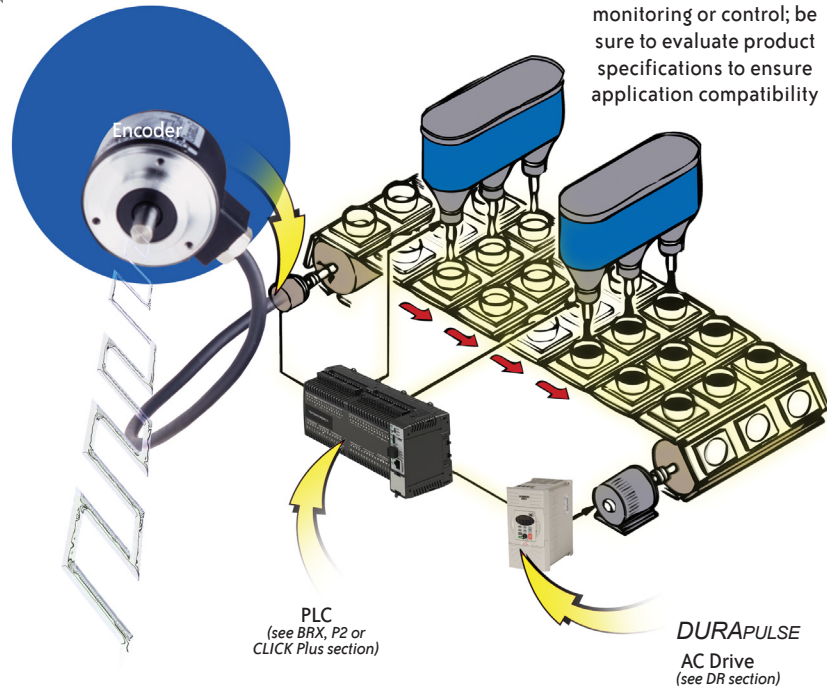
- Capacitive and optical technologies
- Designed to fit NEMA 14 to NEMA 42 motors
- Line driver, NPN open-collector, or push-pull outputs
- Fixed or configurable resolutions up to 4096 ppr

## What is a light-duty encoder?

**Includes series: TRD-SR & TRD-SHR**

A light-duty encoder is a cost-effective encoder requiring minimal load on the shaft. Ours offer the following features:

- Size 15 (1.5 inch or 38mm/40mm) diameter body
- Dust Proof (IP50) or splash-proof (IP65) ratings
- 6 mm standard shaft or 8 mm hollow shaft
- Resolution available from 100 pulses/revolution to 2500 pulses/revolution
- Open collector or line driver outputs
- Up to 200 kHz response frequency



Encoders can be used with controllers for position monitoring or control; be sure to evaluate product specifications to ensure application compatibility

<sup>1</sup> Absolute encoders are not compatible with the PLC high-speed counter modules, but can be used with general purpose DC input cards.

## What is a medium-duty encoder?

**Includes series: TRD-N, TRD-NH, TRDA-20, TRDA-25, TRD-NA**

A medium-duty encoder is the most popular encoder we offer. The product line offers the greatest flexibility of choice while maintaining very high quality, all for a very low price. Our medium-duty encoders offer:

- Size 20 (2.0 inch or 50mm) diameter body or Size 25 (2.5 inch flange with 2.0 inch diameter body) frames
- Dust Proof (IP50) or splash-proof (IP65) ratings
- 8 mm or 3/8" standard shaft or 8 mm hollow shaft
- Incremental or absolute (Gray code) operation
- Incremental resolution available from 3 pulses/revolution to 5000 pulses/revolution
- Absolute resolution available from 32 pulses/revolution to 2048 pulses/revolution
- Open collector, Totem-pole or line driver output versions
- Up to 200 kHz response frequency
- MS connector models available

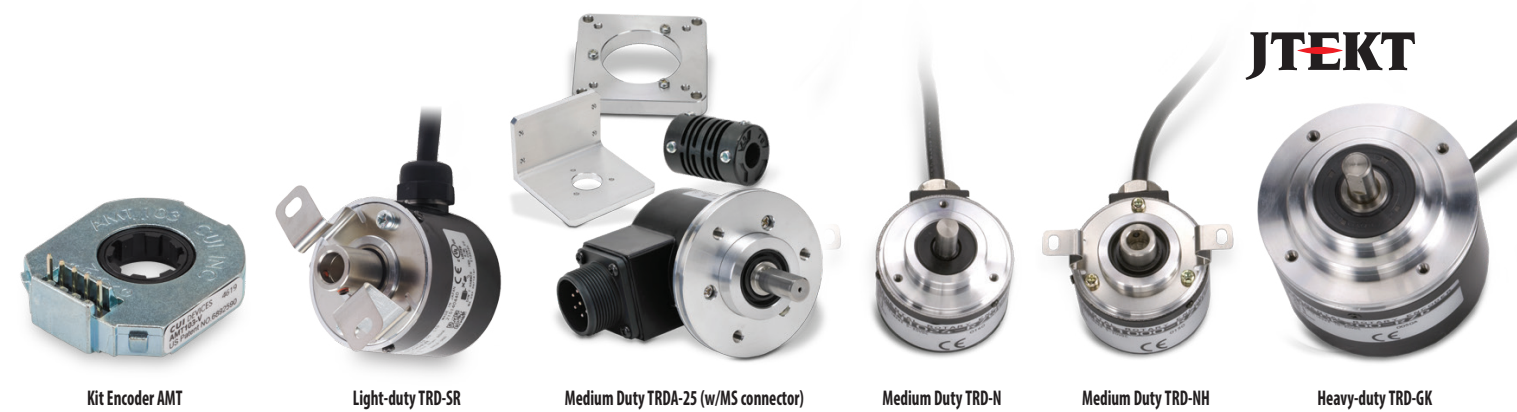
## What is a heavy-duty encoder?

**Includes series: TRD-GK**

A heavy-duty encoder is the most rugged encoder you can buy. Top-of-the-line bearings help maintain a service life of 12 billion revolutions. Our heavy-duty encoders offer:

- Rugged size 30 (3.0 inch or 78mm) diameter body
- Splash-proof (IP65) rating
- 10 mm standard shaft
- Incremental operation from 30 pulses/revolution to 5000 pulses/revolution
- Totem-pole output
- Up to 100 kHz response frequency

# Great Encoder Selection at Great Prices



Duty	Family	Size	Encoder Diameter	Shaft Diameter	Solid or Hollow Shaft	Operating Voltage (VDC) and Electrical Output*	IP Rating	Max Radial Load (N)	Max Axial Load (N)	Available Resolutions (PPR)	
Incremental	Modular/Kit	AMT (CUI Devices)	11, 15	28mm, 42mm	2/3/4/5/6/8/9/10/11/12/13/14mm, 3/16", 1/4", 3/8", 1/2", 5/8"	hollow	5V Line Driver or 5V P/P	IP20	NA**	NA**	Programmable Up to 4096
		STP-MTRA-ENC	12	31mm	5mm, 1/4", 3/8"	hollow	5V Line Driver or 5V P/P	IP20	NA**	NA**	400, 1000
	Light Duty	TRD-SR	15	38 or 40mm	6mm	solid	5V Line Driver or 5-26V OC	IP50 or IP65	20	10	100, 200, 360, 500, 600, 1000, 1024, 2000, 2500
		TRD-SHR	15	38 or 40mm	8mm	hollow	5V Line Driver or 5-26V OC	IP50 or IP65	20	10	100, 200, 360, 500, 600, 1000, 1024, 2000, 2500
	Medium Duty	TRDA-20	20	2"	3/8"	solid	5V Line Driver or 5-30V P/P	IP50	50	30	100, 360, 500, 1000, 1024, 2500
		TRDA-25	25 (w/size 20 body)	2.5" flange (w/ 2.0" body)	3/8"	solid	5V Line Driver or 5-30V P/P	IP65	50	30	100, 360, 500, 1000, 1024, 2500
		TRD-N	20	50mm	8mm	solid	5V Line Driver or 5-30V P/P	IP65	50	30	3, 4, 5, 10, 30, 40, 50, 60, 100, 120, 200, 240, 250, 300, 360, 400, 480, 500, 600, 750, 1000, 1024, 1200, 2000, 2500
		TRD-NH	20	50mm	8mm	hollow	5V Line Driver or 5-30V P/P	IP65	50	30	3, 4, 5, 10, 30, 40, 50, 60, 100, 120, 200, 240, 250, 300, 360, 400, 480, 500, 600, 750, 1000, 1024, 1200, 2000, 2500
	Heavy Duty	TRD-GK	30	78mm	10mm	solid	10-30V P/P	IP65	100	50	30, 100, 120, 200, 240, 250, 300, 360, 400, 500, 600, 1000, 1200, 2000, 2500, 3600, 5000
	Medium Duty Absolute	TRD-NA	20	50mm	8mm	solid	10-30V OC	IP65	50	30	32, 64, 128, 180, 256, 360, 512, 720, 1024 (grey code)

Modular/Kit and TRDA-25 encoders have connectors and require separate cables. All other encoders feature an integral 2m cable.

\*Operating Voltage and Electrical Output:  
 • LD = Line Driver (all Line Drivers require 5VDC supply)  
 • OC = NPN Open Collector (at Operating Voltage)  
 • P/P = Push Pull or Totem Pole (at Operating Voltage)

\*\*Modular/Kit encoders are direct mount, there are no load ratings.

## Accessories

### Couplings

A variety of couplings - metric-to-metric, inch-to-inch (SAE - SAE), and metric-to-inch are in stock, ready to ship.



### Flanges

A collection of flanges that ease encoder mounting. Several models are available with round flanges, square flanges and miscellaneous mounting options.

### Mounting brackets

Simplify your installation with a ready-to-use right-angle mounting bracket for light, medium and heavy-duty encoders



### Cables

For encoders that require a connector cable, we have cables in stock, priced right and ready to ship.

