EPC ENCODER
PRODUCTS COMPANY

Encoder
QUICK REFERENCE GUIDE

Absolute Encoders

Incremental Encoders

Linear Measurement Encoders

Custom Engineering, Accessories & More

Your responsive experts in motion control

ENCODER.COM

INCREMENTAL THRU-BORE & MOTOR MOUNT ENCODERS

58T/HP   Ø58 MM
Programmable

- Programmable output type, waveform, and resolutions from 1 to 65,536 CPR
- Available in thru-bore or blind hollow bore
- Bore sizes to 5/8" or 15 mm
- Variety of flex mount options
- Operating temps: -40° to 100° C
- Sealing to IP67

15T/H   Ø1.5"
High performance & economical

- Resolutions from 1 to 10,000 CPR
- Available in thru-bore or blind hollow bore
- Bore sizes to 3/8" or 10 mm
- Up to 12-pole commutation
- Variety of flex mount options
- Operating temps: -40° to 120° C
- Sealing to IP64

25T/H   Ø2.5"
Harsh duty

- Resolutions from 1 to 10,000 CPR
- Available in thru-bore or blind hollow bore
- Bore sizes from 1/4" to 1 1/8" or 6 mm to 28 mm
- Frequencies to 1 MHz
- Variety of flex mount options
- Single replacement for 2.0" to 3.5" encoders
- Operating temps: -20° to 105° C
- Sealing to IP66

225A/Q   Ø2.25"
Economical tachometer/motor feedback

- Single channel and quadrature
- Bore sizes to 7/8" or 22 mm
- Variety of connector options
- Flexible mounting arm available

755A   Ø1.5"
Compact, high resolution, blind hollow bore

- Resolutions from 1 to 30,000 CPR
- Bore sizes to 3/4" or 14 mm
- Frequencies to 1 MHz
- Flexible mounting brackets
- Operating temps: -40° to 100° C

260   Ø2.0"
Compact, economical thru-bore

- Resolutions from 1 to 10,000 CPR
- Bore sizes to 5/8" or 15 mm
- Up to 12-pole commutation
- Variety of flex mounts
- Operating temps: -40° to 120° C
- Sealing to IP64

ENCODER MODULES

121   Ø2.1"
Auto-aligning

- Resolutions from 1 to 2500 CPR
- Patented auto-aligning mounting
- Bore sizes to 5/8" or 15 mm
- Operating temps: 0° to 100° C
- Includes IP50 dust seal kit

30M & 30MT   Ø30 MM
Magnetic encoder modules

- Resolutions from 1 to 1024 CPR (4096 PPR with quadrature counting)
- Compact 30 mm (1.18") size
- Available with 8-pin Molex*, 16-pin Molex*, or 8-pin M12 connector
- Optional 2-pole or 32-pole commutation
- Large air gap and tolerance to misalignment
- Model 30MT has threaded housing for built-in alignment
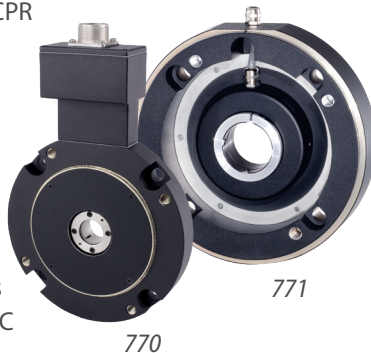- Operating temps: -40° to 120°C
- Sealing to IP69K

30MT

30M

*Model 30M only

LARGE BORE ENCODERS
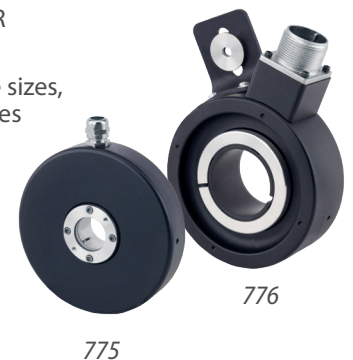
770 & 771   Ø6.5" / Ø9.0"

- Resolutions from 1 to 4096 CPR
- Model 770 fits NEMA frame size 56C thru 184C
- Model 770 bore sizes up to 1" or 24 mm
- Model 771 fits NEMA frame sizes 182TC thru 256TC
- Model 771 bore sizes up to 1-7/8" or 43 mm
- Variety of connector options
- Operating temps: 0° to 100° C

771

770

775 & 776   Ø4.3"

- Resolutions from 1 to 4096 CPR
- Slim profile – only 1.36" depth
- Available with a variety of bore sizes, resolutions, and connector types
- CE marking available
- Easy over-shaft installation
- Operating temps: 0° to 100° C

776

775

INCREMENTAL SHAFT ENCODERS

25SP — Ø2.5"

Programmable

- Programmable output type, waveform, and resolutions from 1 to 65,536 CPR
- Flange or servo mounting
- Teachable index
- Shaft sizes up to 5/16" or 10 mm
- Dual bearings rated 80 lbs axial or radial
- Operating temps: -40° to 100° C
- Sealing to IP67

15S — Ø1.5"

High performance & economical

- Resolutions from 1 to 10,000 CPR*
- Up to 12-pole commutation available
- Operating temps: -40° to 120° C
- Sealing to IP64

*For higher resolutions, contact EPC

702 — Ø2.0"

Harsh duty

- Resolutions from 1 to 30,000 CPR
- Shaft sizes to 3/8" or 10 mm
- 80 lb maximum radial and axial load
- Operating temps: 0° to 100° C
- Sealing to IP67

758 — Ø58 MM

Commonly-used size

- Resolutions from 1 to 30,000 CPR
- Clamping or synchro flange
- 80 lb maximum radial and axial load
- Operating temps: 0° to 100° C
- Sealing to IP67

725 — Ø2.5"

Industrial double-bearing option

- Resolutions from 1 to 30,000 CPR
- Frequencies to 1 MHz
- "Encoder-within-encoder option" industrial isolated flex housing available
- Operating temps: 0° to 100° C
- Sealing to IP67

711, 715, 716

Cube encoders

- The original Cube encoders
- Resolutions from 1 to 10,000 CPR
- Single channel, quadrature, and timed pulse
- Versatile housing styles, from standard to ultra-heavy duty

ABSOLUTE ENCODERS

A36R — Ø36 MM

Thru-bore absolute encoder

- Compact Size 36 mm (1.42") package
- Slim profile – only 1.0" depth
- Single/multi-turn (22 Bit ST / 24 Bit MT)
- Thru-bore or blind hollow bore designs
- New blue LED and reflective sensor technology allow for high accuracy and resolution in a compact package
- Bore sizes up to 10 mm
- Flex mounts eliminate couplings and are ideal for motors

BiSS INTERFACE
SSI Synchronous Serial Interface

A58SE & A58HE — Ø58 MM

Ethernet-ready absolute encoder

- Standard Size 58 mm (2.28") package with bus cover
- Single/multi-turn (16 Bit ST / 43 Bit MT)
- Model A58SE (shaft) with synchro, clamping, compact, and heavy duty flange options
- A58SE shaft with clamping flange is compatible with Models PLMS and LCX for linear measurement
- Model A58HE (blind hollow bore) with flex mount eliminates couplings and is ideal for motors

A58SE
A58HE
EtherNet/IP
PROFINET®
EtherCAT®

A36SB & A36HB — Ø36 MM

Compact bus absolute encoders

- Standard Size 36 mm (1.42") package
- Single/multi-turn (16 Bit ST / 43 Bit MT)
- Model A36SB (shaft) available with 6 mm, 10 mm, or 1/4" shaft
- Model A36HB (blind hollow bore) with flex mounts eliminate couplings and are ideal for motors
- Some models available with IP69K sealing

A36SB
A36HB
SAE INTERNATIONAL® J1939
SSI Synchronous Serial Interface
CANopen

A58SB, A58HB & A58SBS — Ø58 MM

Robust bus absolute encoders

- Standard Size 58 mm (2.28") package
- Single/multi-turn (16 Bit ST / 43 Bit MT)
- Model A58SB (shaft) with synchro or clamping flange
- A58SB shaft with clamping flange is compatible with Models PLMS and LCX for linear measurement
- Model A58HB (blind hollow bore) with flex mounts eliminate couplings and are ideal for motors
- A58SBS available with stainless steel IP69K sealing

A58SB
A58HB
SAE INTERNATIONAL® J1939
SSI Synchronous Serial Interface
CANopen

A25SB — Ø2.5"

Double-bearing absolute encoder

- Standard Size 25 package (2.5" x 2.5")
- Single/multi-turn (16 Bit ST / 43 Bit MT)
- Servo and flange mounting
- Proven double bearing design
- Compatible with Model PLMS bracket and measuring wheel
- Sealing to IP67 and IP69K sealing

SAE INTERNATIONAL® J1939
SSI Synchronous Serial Interface
CANopen

FAST LEAD TIMES | EXCEPTIONAL VALUE | EXPERT SUPPORT

LINEAR MEASUREMENT SOLUTIONS

TR1, TR2, & TR3

- Integrated encoder and measuring wheel in one compact unit
- Models TR1 and TR3 offer variety of measuring wheel sizes and contact surfaces to accommodate most materials
- Model TR3 available in single or dual wheel configuration
- Resolutions from 1 to 10,000 CPR
- Operates over a variety of surfaces at speeds up to 3000 feet per minute (400 feet per minute for TR2 with rack & pinion gear)
- Easily installed in a vertical, horizontal or upside down orientation
- Model TR1 and Model TR2 offer sealing to IP66
- Model TR3 offers sealing to IP67

TR1

TR2

TR3

TRP TRU-TRACPRO™

- Integrated encoder and measuring wheel in one compact unit
- Offers a variety of measuring wheel sizes and contact surfaces to accommodate most materials
- Resolutions from 1 to 100,000 CPR
- Operates over a variety of surfaces at speeds up to 3000 feet per minute
- Easily installed in a vertical, horizontal or upside down orientation

PR2 PROGRAMMER

- Program the CPR to any resolution from 1 to 100,000
- Customizable output waveform - Choose from 40 options
- Teach index location
- Field calibration for better performance and accuracy
- Easily restore factory configuration
- Check temperature and diagnostic data
- View device information

PLMS

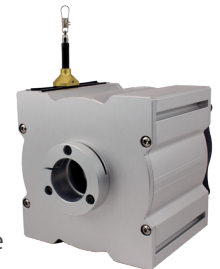*Programmable incremental · Absolute*

- Fits any 2.5" shaft encoder with servo flange or 58 mm with clamping flange, including:

  · Model 25SP Accu-CoderPro®
  · Model A58SE with EtherNet/IP™, EtherCAT®, or PROFINET®
  · Model A58SB with CANopen®, SSI, or J1939
  · Model A25SB with CANopen®, SSI, or J1939
  · Variety of measuring wheel sizes and contact surfaces to accommodate most materials

- Optional angled mounting bracket available

LCX SERIES DRAW WIRE

Absolute • Incremental • Stainless steel

- Wire lengths from 1 to 42.5 m
- Linearity ± 0.05 % of full range with encoder
- Optional high corrosion protection
- Temperature range: -20° C to 85° C
- Low temp option: -40° C
- Fits any 2.5" shaft encoder with servo flange or 58 mm with clamping flange, including:

  · Model A58SB with SSI, CANopen®, or J1939
  · Model A58SE with EtherNet/IP™, EtherCAT®, or PROFINET®
  · Model 758 high-performance incremental encoder
  · Model 858S stainless steel incremental encoder

INCREMENTAL STAINLESS STEEL ENCODERS

802S   Ø2.0"

- Resolutions from 1 to 30,000 CPR
- Flange or servo mounting
- 80 lb maximum axial and radial shaft loading
- Operating temps: 0° to 100° C
- Sealing to IP67

858S   Ø58 MM

- Resolutions from 1 to 30,000 CPR
- 80 lb maximum axial and radial shaft loading
- Operating temps: -40° to 100° C
- Sealing to IP67

865T   Ø6.0"

- Resolutions from 1 to 4096 CPR
- Fits NEMA Size 56C thru 184C motor faces (4.5" AK)
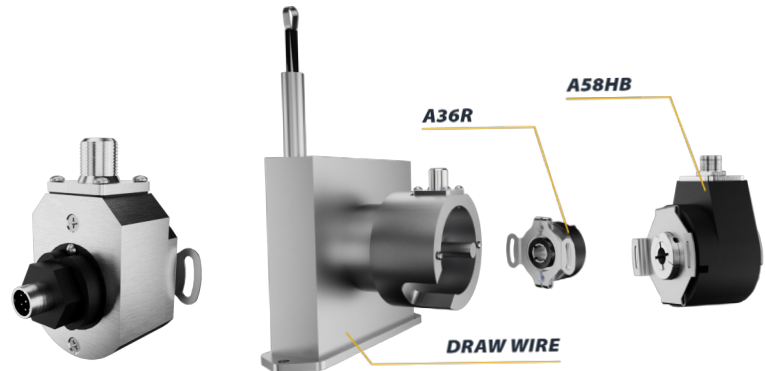- Slim 1.0" depth
- Operating temps: 0° to 100° C

For detailed product specifications, drawings, and photos, please refer to the product datasheet at encoder.com/product-datasheets

CUSTOM ENGINEERING

CUSTOM ENGINEERING SOLUTIONS

- Our Engineering Team is dedicated to customer driven solutions
- Timely Engineering and design services with prompt lead times
- Over a thousand custom designs offered
- Application specific designs available
- Custom machining
- Inventory planning

For more information on custom solutions, contact EPC

A58HB

A36R

DRAW WIRE

LINEAR MEASUREMENT ACCESSORIES

LINEAR MEASUREMENT BRACKETS

- EPC brackets are manufactured of durable materials and have the proper mounting holes and geometry for ease of use with EPC's encoders.
- Pivot brackets use the combined weight of the encoder, measuring wheel, and bracket to provide surface torsion, while the single pivot action allows the assembly to adjust pitch for variations in material.
- Spring loaded pivot brackets provide an adjustable surface torsion, which allows the encoder and measuring wheel to be mounted in almost any orientation, even upside down.
- Angled mounting brackets allow for a variety of mounting positions.

MEASURING WHEELS

EPC offers measuring wheels in a range of sizes and materials:
- Polyurethane in a variety of durometer ratings
- Rubber insert
- Knurled aluminum
- Hard-anodized knurled aluminum

SIGNAL ENHANCEMENT / CABLES, CONNECTORS & MATING CORDSETS

RX/TXD

4-in-1 Repeater, converter, splitter, tester

- Splits one input signal into two or three outputs
- For use when multiple devices need to receive an encoder signal – several RX/TXD units can be combined to provide as many outputs as needed.
- Signal conditioner or repeater for long-distance transmission
- Provides conversion between common signal types – accommodates a variety of digital signal types (RS422, NPN, PNP, TTL, etc.) and voltages (5VDC or 5-24VDC) as both input and output options.
- Level changes from Vcc to 5V or 5V to Vcc
- Convenient DIN rail package

ENCODER POWER CABLES, CONNECTORS, AND INDUSTRIAL ETHERNET COMMUNICATION & POWER

- EPC cable and mating connector assemblies can be ordered to your specified length and with the proper pin-out.
- Encoder cables and mating connectors can be ordered separately.
- 5-pin and 8-pin M12 cordsets are available in a variety of lengths.

MANUFACTURING QUALITY SINCE 1969

Get the EPC Advantage

Doing Business Since 1969

Encoder Products Company, Inc. (EPC) is a leading designer and manufacturer of motion sensing devices. Founded in the U.S.A. in 1969, EPC began operations with a small line of custom encoders and has remained a US-based company, with our main manufacturing facility, our 100,000 square foot vertically-integrated location, in Sagle, Idaho, USA.

Quality You Can Rely On

EPC is an ISO 9001.2015 certified company. At EPC, quality is designed into every product and each product is fully tested against EPC's exacting quality standards.

Outstanding Value

Our products are competitively priced and come with an industry leading warranty* – and we routinely hear from customers who are replacing EPC encoders that are decades old.

For products with a high-operating-temperature option, warranty is two years.

Exceptional Customer Service

When you call EPC, you talk to engineers and encoder experts who can answer your toughest encoder questions. We're here to answer your calls Monday through Friday, 5:00 am - 4:30 pm PST.

Fast Lead Times

EPC is known for our fast lead times. We can produce your custom encoders faster than most suppliers' standard products, and we even offer same-day expedite service on many models.

ENCODER PRODUCTS COMPANY

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