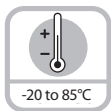


## Compact type 3610 (shaft) / 3620 (hollow shaft)



High rotational speed



Temperature



Shock/vibration resistant



Magnetic field proof



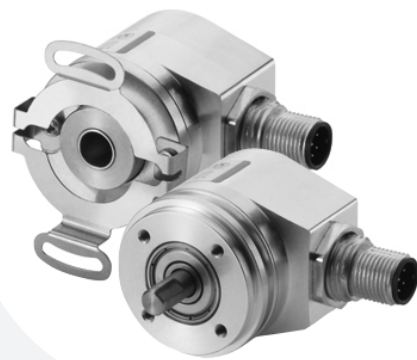
Short-circuit proof



Reverse polarity protection

### Rugged

- Chromated housing resistant to cooling lubricants and other environmental influences
- IP65 from housing side
- Robust strain relief on cable outlet.
- Highly flexible cable (withstands constant flexing at +32 to +158°F (0 to 70 °C))
- Short-circuit proof
- Wide temperature range -4 to +185°F (-20 to +85°C)
- Temperature and aging compensation



### Compact

- **Can be used where space is tight**  
Overall diameter of only 36.5 mm  
Shaft diameter min. 4 mm

### Versatile

- Hollow shaft version: Fits directly onto drive shaft - no couplings needed - saves up to 30% on cost and 60% on installation space and time
- Universal application in mechanical engineering, vehicles, conveyors and elevators
- Low current consumption despite high scanning rate
- Broad input voltage range (5-18 V or 8-30 V)

### Mechanical characteristics:

Speed:	Shaft version: max. 12,000 RPM Hollow shaft version: max. 6,000 RPM	Working temperature:	-4 to +185°F (-20 to +85°C)
Rotor moment of inertia:	approx. 1.1 x 10 <sup>-2</sup> oz-in <sup>2</sup> (0.2 x 10 <sup>-6</sup> kgm <sup>2</sup> )	Materials:	Shaft: stainless steel; Hollow shaft: brass Housing: chromated Aluminium Cable: PVC
Starting torque:	< 7 oz-in (< 0.05 Nm)	Shock resistance acc. to EN 60068-2-27:	approx. 100 g (1,000 m/s <sup>2</sup> ), 6 ms
Radial load capacity of the shaft:	9 lbs (40 N)	Vibration resistance acc. to EN 60068-2-6:	approx. 10 g (100 m/s <sup>2</sup> ), 55-2,000 Hz
Axial load capacity of the shaft:	4.5 lbs (20 N)		
Weight:	approx. 0.175 lbs (0.08 kg)		
Protection acc. to EN 60 529:	IP65, housing side, IP50 shaft side (IP64 on request)		

### Electrical characteristics:

Output circuit:	Push-pull (7272) <sup>2)</sup>	Push-pull (7272) <sup>2)</sup>	RS422
Supply voltage:	5-18 VDC	8-30 VDC	5 VDC
Power consumption (no load) with inverted signal:	< 40 mA	< 40 mA	< 40 mA
Permissible load/channel:	max. ±50 mA	max. ±50 mA	max. ±50 mA
Pulse frequency:	max. 200 kHz	max. 200 kHz	max. 200 kHz
Signal level high:	min. +V -2.5 V	min. +V -3 V	min. +V -2.5 V
Signal level low:	max. 0.5 V	max. 0.5 V	max. 0.5 V
Rise time t <sub>r</sub> :	max. 1 μs	max. 1 μs	max. 200 μs
Fall time t <sub>f</sub> :	max. 1 μs	max. 1 μs	max. 200 μs
Short-circuit proof outputs <sup>1)</sup> :	yes	yes	yes
Reverse connection protection at +V:	yes	yes	yes
UL certified:	File 224618		

Conforms to CE requirements acc. to EN 61000-6-2, EN 55011 Class B

RoHS compliant acc. to EU guideline 2002/95/EG

<sup>1)</sup> If supply voltage correctly applied

<sup>2)</sup> Max. recommended cable length 30 m

# Rotary Position Technology

## Incremental Encoders

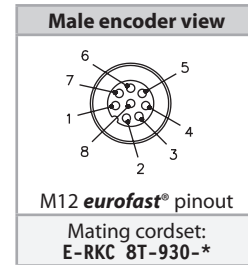


### Compact type 3610 (shaft) / 3620 (hollow shaft)

#### Standard wiring:

Output:	Case Ground	Common (0 V)	+V	A	$\bar{A}$	B	$\bar{B}$	Z	$\bar{Z}$
M12 <i>eurofast</i> ®	Coupling Nut	1	2	3	4	5	6	7	8
Cable w/ inverted signals:	Shield/Drain	WH	BN	GN	YE	GY	PK	BU	RD
Cable w/ inverted signals:	Shield/Drain	WH	BN	GN	-	YE	-	GY	-

#### Wiring Diagram:



\* Length in meters.

#### Part number key: 3610 shaft version

**T8.3610.XXXX.XXXX**

#### Type

#### Flange

2 = servo flange  
3 = clamping flange

#### Shaft (Ø x L)

1 = Ø 4 mm x 10 mm  
2 = Ø 5 mm x 10 mm  
3 = Ø 6 mm x 12.5 mm  
5 = Ø 1/4" x 12.5 mm

#### Pulse rate

25, 100, 200, 360, 500, 600, 1000, 1024, 1500, 2000, 2048, 2500, 3600  
(e.g. 500 pulses => 0500)  
Other pulse rates available on request

#### Type of connection

1 = axial cable (2 m PVC cable)  
2 = radial cable (2 m PVC cable)  
3 = radial 8-pin M12 *eurofast* connector  
4 = axial 8-pin M12 *eurofast* connector

#### Voltage supply and output circuit

2= 5-18 VDC, push-pull with inverted signals  
3 = 8-30 VDC, push-pull without inverted signals  
4 = 8-30 VDC, push-pull with inverted signals  
5 = 8-30 VDC, RS422 with inverted signals  
6 = 5 VDC, RS422 with inverted signals

#### Part number key: 3620 hollow shaft version

**T8.3620.XXXX.XXXX**

#### Type

#### Flange

1 = hollow shaft with short torque stop  
2 = hollow shaft with long torque stop  
5 = hollow shaft with slotted flex mount

#### Hollow shaft

2 = Ø 6 mm through hollow shaft  
3 = Ø 6.35 mm (1/4" through hollow shaft)  
4 = Ø 8 mm through hollow shaft

#### Pulse rate

25, 100, 200, 360, 500, 600, 1000, 1024, 1500, 2000, 2048, 2500, 3600  
(e.g. 500 pulses => 0500)  
Other pulse rates available on request

#### Type of connection

E = radial cable (2 m PVC cable)  
4 = radial 8-pin M12 *eurofast* connector

#### Voltage supply and output circuit

2= 5-18 VDC, push-pull with inverted signals  
3 = 8-30 VDC, push-pull without inverted signals,  
4 = 8-30 VDC, push-pull with inverted signals  
5 = 8-30 VDC, RS422 with inverted signals  
6 = 5 VDC, RS422 with inverted signals

#### Accessories:

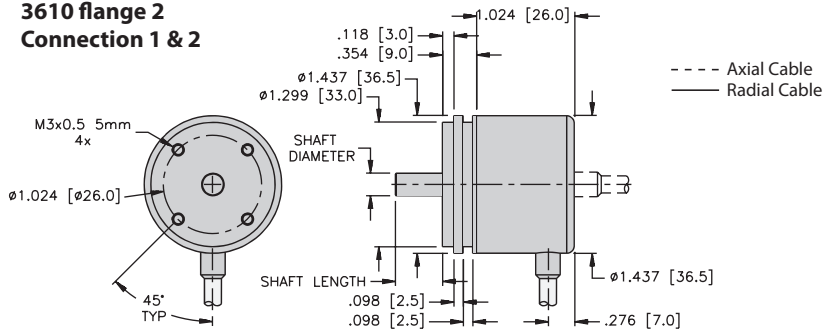
- See page J1, Connectivity, for cables and connectors
- See page G1, Accessories, for mounting attachments and couplings

Incremental Encoders

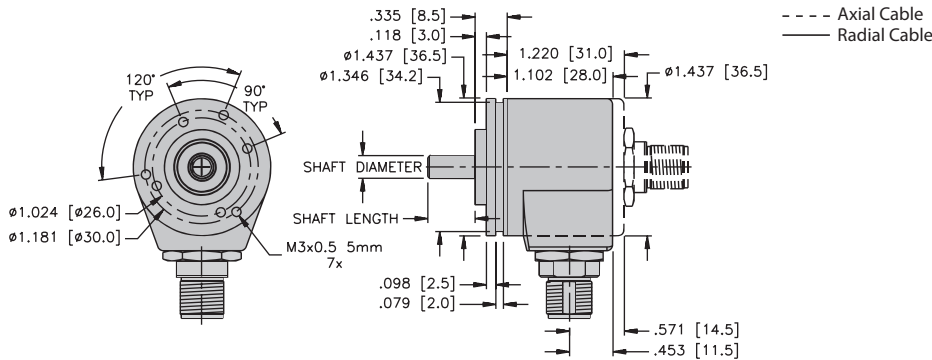
**Compact type 3610 (shaft) / 3620 (hollow shaft)**

**Dimensions: 3610 shaft version**

**3610 flange 2**  
**Connection 1 & 2**



**3610 flange 3**  
**M12 eurofast® connection 3 & 4**

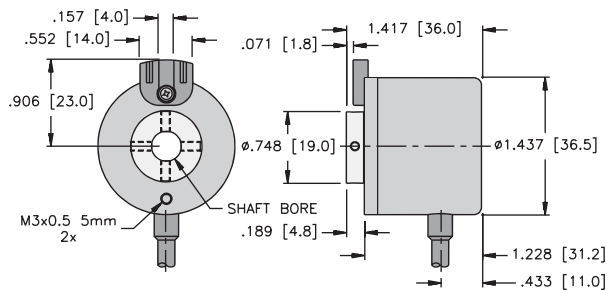


**Mounting advice:**

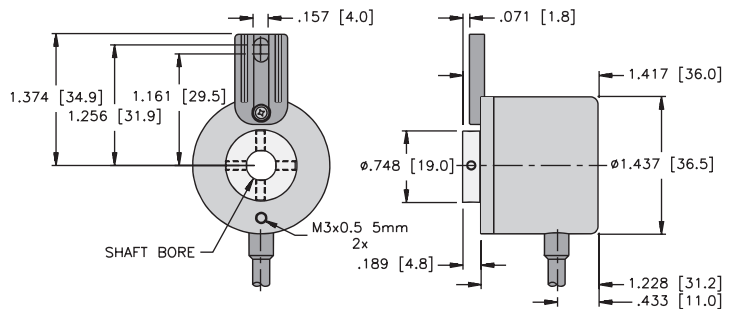
The flanges and shafts of the encoder and drive should not be rigidly coupled together at the same time. We recommend the use of suitable couplings (see page G1, Accessories).

**Dimensions: 3620 hollow shaft version**

**3620 flange 1**  
**Connection E**



**3620 flange 2**  
**Connection E**



**3620 flange 5**  
**M12 eurofast® connection 4**

