

# ROTAPULS

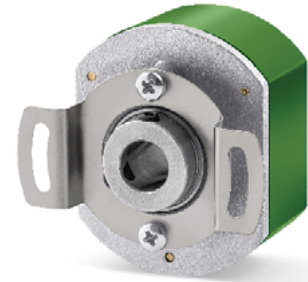
Feedback encoder for brushless motors

Series

CB50



- Brushless motor (BLDC) feedback encoder
- UVW commutation signals
- Easy installation with PCB connector
- Compact through hollow shaft encoder



CB50

## ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP20
Operating temperature range:	-20°C +100°C (-4°F + 212°F)
Storage temperature range:	-20°C +100°C (-4°F + 212°F) (98% R.H. without condensation)

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Hollow shaft diameter:	Ø 6, 6.35, 8, 9.52, 10 mm
Shaft loading (axial, radial):	20 N max.
Shaft rotational speed:	6000 rpm max.
Starting torque at 20°C:	0,2 Ncm (typical)
Misalignment:	± 0,3 mm axial ± 0,06 mm radial ± 0,2° mm angular
Bearings life:	2 x 10 <sup>9</sup> rev. min.
Electrical connections:	pins or PCB connection cable
Weight:	~ 100 g (3,5 oz)

## ELECTRICAL SPECIFICATIONS

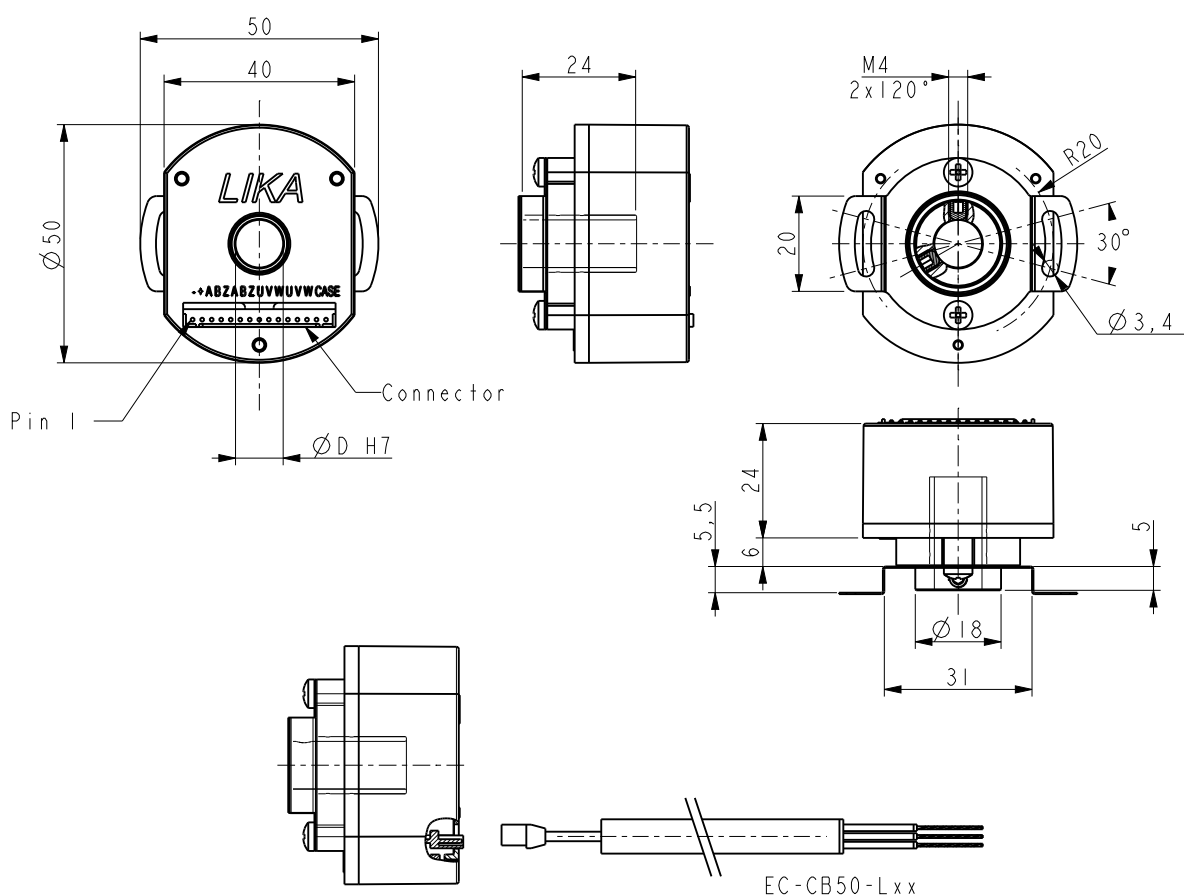
Pulse rate - Poles:	1000-1024-1250-2000-2048-2500
U, V, W commutations signals:	4 - 6 - 8 poles
Counting frequency:	100 ÷ 200 kHz max.
Output circuits:	Push-Pull, Line Driver
Power supply:	+5V±5%, +10V +30V
Consumption:	70 mA (typical)
Output current (each channel):	40 mA max.
Protection:	against inversion of polarity and short-circuit (except L circuit)
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 hrs min.

## MATERIALS

Flange:	zamac die cast
Housing:	plastic, NYLON 6 FV 15%
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic - UNI EN 4305
Light source:	GaAl diodes

## ACCESSORIES

EC-CB50:	mating connector with cable (30 cm/11.8 in.)
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CB50

Order code

CB50	-	X Ⓐ	-	XXXX Ⓑ	/	X Ⓒ	X Ⓓ	XX Ⓔ	/Sxxx Ⓕ
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Ⓐ OUTPUT CIRCUITS

Y = Push Pull  
L = Line Driver (RS422)

Ⓑ RESOLUTION (PPR)

1000, 1024, 1250, 2000, 2048, 2500

Ⓒ N° POLES

4 = 4 poles  
6 = 6 poles  
8 = 8 poles

Ⓓ SUPPLY VOLTAGE

1 = +5V±5% (L output circuit)  
2 = +10V÷ +30V (Y output circuit)

Ⓔ SHAFT DIAMETER

6 = 6 mm  
P6 = 6.35 mm - 1/4"  
8 = 8 mm  
P9 = 9.52 mm - 3/8"  
10 = 10 mm

Ⓕ CUSTOM VERSION