

# ROTAPULS

Incremental encoder

series

C51



- Small size incremental encoder with high resolution
- DC and AC motor feedback



C51



[www.lika.biz](http://www.lika.biz)  
 • Data-sheet  
 • User manual

## ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms (acc. to MIL STD 202F)
Vibrations:	10 g, 5-2000 Hz (acc. to MIL STD 202F)
Operating temperature range:	-20°C +85°C (-4°F +185°F)
Storage temperature range:	-20°C +85°C (-4°F +185°F) (98% R.H.without condensation)
Protection:	IP54
Option:	• IP65 Protection

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft hollow:	Ø 6, 6.35, 8, 9.52, 10 mm
Shaft loading (axial and radial):	20 N max.
Shaft rotational speed:	3000 rpm max.
Starting torque at 20°C:	≤ 1,5 Ncm (typical)
Moment of inertia:	~ 20 gcm <sup>2</sup>
Bearings life:	10 <sup>9</sup> rev. min.
Weight:	~ 0,1 kg (3,5 oz)

## ELECTRICAL SPECIFICATIONS

STD pulse rate:	6-10-12-15-25-36-40-45-50-60-80-90-900 1500-2000-2048-2500
Power supply:	+5V±5%, +10V +30V,+5V +30V
Output circuits:	Push-Pull, Line Driver, PP/LD
Output current (per channel):	40 mA max.
Output frequency:	100 kHz max.
Input current:	70 mA max.
Protection:	against inversion of polarity (except +5V version)
Optoelectronic life:	100.000 hrs min.

## MATERIALS

Flange:	anticorodal, UNI EN AW-6082
Housing:	anticorodal, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic - UNI EN 4305
Light source:	GaAl diodes

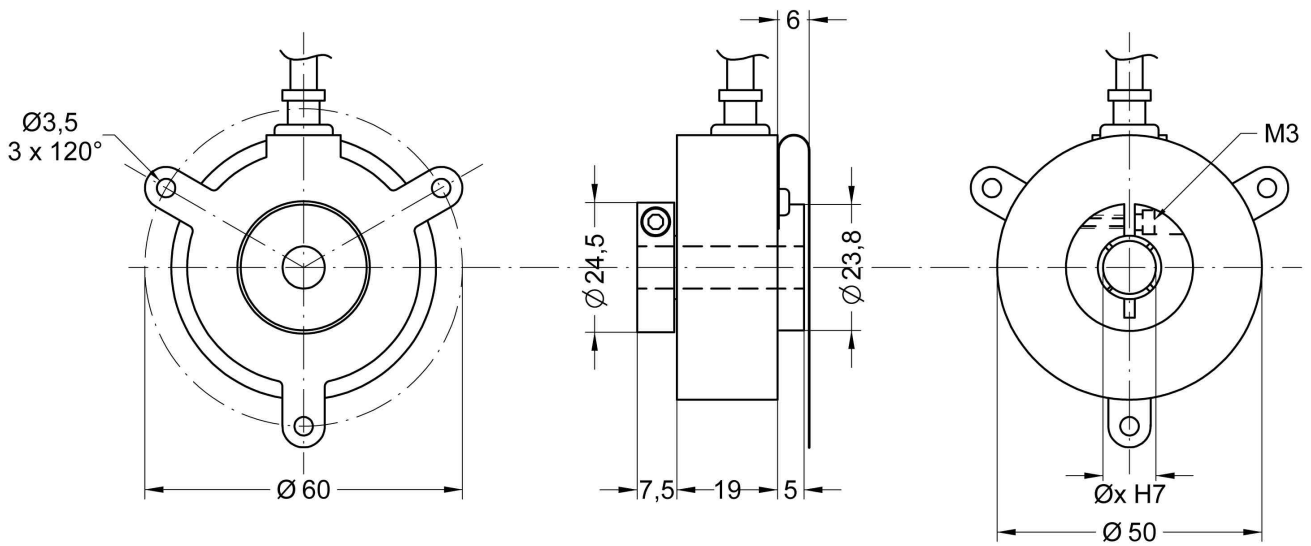
## ELECTRICAL CONNECTIONS

1	2	Function
Brown	Yellow	A
-	Blue	/A
Blue	Green	B
-	Orange	/B
White	White	0
-	Grey	/0
Red	Red	+Vdc
Black	Black	0 Vdc GND

1 = Shielded cable LIKA 5x0,22 mm<sup>2</sup>  
 2 = Shielded cable LIKA 8x0,22 mm<sup>2</sup>

## ACCESSORIES

EDE9S:	9 pin DSub mating connector
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C51

ORDERING CODE

ADDITIONAL CODE (indicate only if necessary)

**XXXX - X - XXXX**

SERIES: C51

**OUTPUT CIRCUITS**

- Push-Pull: Y
- Line Driver AD26LS31 or eqv.: L
- PP/LD universal circuit: H

**PULSE RATE (PPR)**

See electrical specifications

**OUTPUT SIGNALS CONFIGURATION**

- Bidirectional: B
- Bidirectional with index pulse: Z

**X X X X X**

**SHAFT DIAMETER**

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

**ELECTRICAL CONNECTIONS**

- N: Normal output
- C: Complementary outputs
- F: 5 wires cable, 1m. (3.3 ft)
- U: 8 wires cable, 1m. (3.3 ft)

**SUPPLY VOLTAGE VS OUTPUT CIRCUIT**

- +5V±5% (L output circuit): 1
- +10V± +30V (Y output circuit): 2
- +5V± +30V (PP/LD universal circuit): 4

**X X X /Sxxx**

custom version

**C**: Inline connector DSub 9 pin

**Lx**: Cable length on request  
 Ex.: L4 = 4 m (13.2 ft)  
 L7 = 7 m (23.0 ft)

**P**: IP65 Protection