

# ROTAPULS

Incremental encoder

Series

C82



- Encoder for elevator motors
- Precise optical sensing
- Operating temperature up to  $-40^{\circ}\text{C}$   $+100^{\circ}\text{C}$
- Resolution from 12 to 8192 PPR
- Hollow shaft from  $\varnothing$  30 to  $\varnothing$  44 mm
- Other fixing plates available on request



C82

## ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP54
Operating temperature range:	$-25^{\circ}\text{C}$ $+85^{\circ}\text{C}$ ( $-13^{\circ}\text{F}$ $+185^{\circ}\text{F}$ )
Storage temperature range:	$-25^{\circ}\text{C}$ $+85^{\circ}\text{C}$ ( $-13^{\circ}\text{F}$ $+185^{\circ}\text{F}$ ) (98% R.H. without condensation)
Options:	<ul style="list-style-type: none"><li>• Operating temperature range: <math>-40^{\circ}\text{C}</math> <math>+100^{\circ}\text{C}</math> (<math>-40^{\circ}\text{F}</math> <math>+212^{\circ}\text{F}</math>)</li><li>• IP65 Protection (2000 rpm max, torque 2 Ncm)</li></ul>

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft hollow:	$\varnothing$ 30, 32, 34, 35, 38, 40, 42, 44 mm
Reducing sleeves, BR2-xx from $\varnothing$ 30 mm to:	$\varnothing$ 15, 5/8" (15,875), 16, 17, 18, 19, 20 22, 23, 24, 1" (25,4), 28 mm
Shaft loading:	axial: 100 N max. radial: 200 N max.
Shaft rotational speed:	max. 2000 rpm@ $70^{\circ}\text{C}$ ( $158^{\circ}\text{F}$ )/IP54, 3000 rpm@ $100^{\circ}\text{C}$ ( $212^{\circ}\text{F}$ )/IP54 max. 1500 rpm@ $70^{\circ}\text{C}$ ( $158^{\circ}\text{F}$ )/IP65, 2000 rpm@ $100^{\circ}\text{C}$ ( $212^{\circ}\text{F}$ )/IP65
Starting torque at $20^{\circ}\text{C}$ :	$4 \div 12$ Ncm (typical)
Misalignment:	$\pm 0,3$ mm radial $\pm 0,2$ mm axial
Bearings life:	$400 \times 10^6$ rev. min. ( $10^9$ rev. min. with 20 N shaft loading max.)
Electrical connections:	M23 12 pin plug or cable output 1 m (3.3 ft)
Weight:	$\sim 0,3$ g (10,6 oz)
Option:	<ul style="list-style-type: none"><li>• additional cable</li></ul>

## ELECTRICAL SPECIFICATIONS

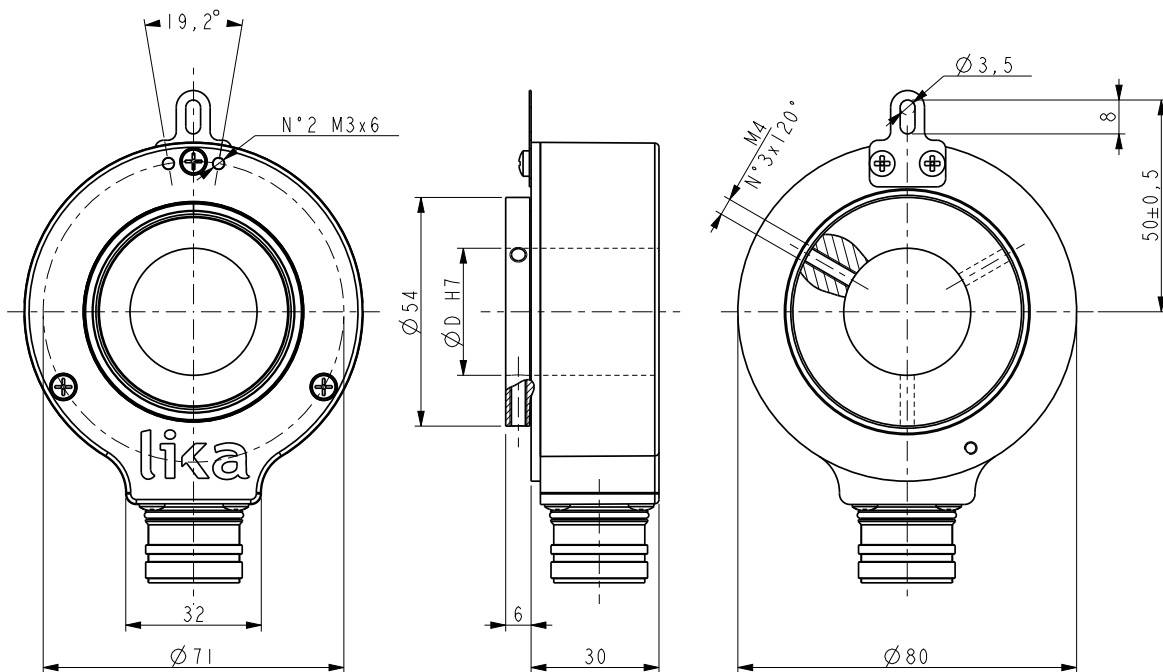
Resolution (PPR):	12-100-300-400-500-1024-2048-2500-4096-8192
Counting frequency:	100 kHz max.
Output circuits:	Push-Pull, Line Driver, Universal circuit
Power supply:	$+5\text{V} \pm 5\%$ , $+10\text{V}$ $+30\text{V}$ , $+5\text{V}$ $+30\text{V}$
Consumption:	70 mA (typical)
Output current (each channel):	40 mA max.
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 hrs min.

## MATERIALS

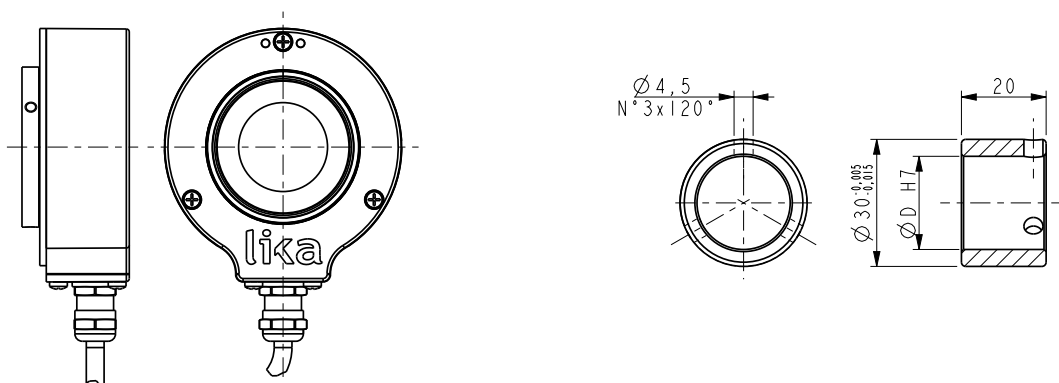
Flange:	anticorrosive, UNI EN AW-6082
Housing:	die cast aluminium, UNI EN AC-46100
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic, UNI EN 4305
Light source:	GaAl diodes

## ACCESSORIES

EPFL121:	M23 12 pin mating connector
BR2-xx:	reducing sleeves



C82



BR2-xx

Order code

C82	-	X a	-	XXXXX b	XXX c	X d	XX e	X f	X g	XX h	/Sxxx i
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a OUTPUT CIRCUITS

Y = Push Pull  
L = Line Driver (RS422)  
H = PP/LD universal circuit

b RESOLUTION (PPR)

See electrical specifications

c OUTPUT SIGNALS / CONNECTIONS

BNF = AB, cable output  
ZNF = ABO, cable output  
BCU = AB /AB, cable output  
ZCU = ABO /ABO, cable output  
BCZ = AB /AB, M23 12 pin plug  
ZCZ = ABO /ABO, M23 12 pin plug

d SUPPLY VOLTAGE

1 = +5V±5% (L output circuit)  
2 = +10V÷ +30V (Y output circuit)  
4 = +5V÷ +30V (H output circuit)

e SHAFT DIAMETER

30 = 30 mm  
32 = 32 mm  
34 = 34 mm  
35 = 35 mm  
38 = 38 mm  
40 = 40 mm  
42 = 42 mm  
44 = 44 mm (43,97)

f PROTECTION

- = IP54 protection (standard)  
P = IP65 protection

g OPERATING TEMPERATURE

- = -25°C +85°C (-13°F +185°F)  
K = -40°C +100°C (-40°F +212°F)

h CABLE LENGTH

- = cable output 1 m  
L2 = cable output 2 m  
L7 = cable output 7 m  
Lx = cable output x m  
CLx = x m cable with DSub 9 pin inline plug

i CUSTOM VERSION