

# ROTAPULS

Incremental encoder

series

C80



- Feedback encoder for big sized motors
- Very flat design
- Through hollow shaft up to Ø30mm
- Robust die cast housing with IP65 protection



C80



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

## 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 +70°C (-4°F +158°F)
Storage temperature range:	-20°C +80°C (-4°F +176°F) (98% R.H.without condensation)
Protection:	IP64
Options:	<ul style="list-style-type: none"> <li>• Operating temperature range: -40°C +100°C (-40°F +212°F)</li> <li>• IP65 Protection (3000 rpm max, torque 2 Ncm)</li> </ul>

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft hollow:	ø 25, 30 mm
Reducing sleeves, BR2-xx from ø 30 mm to:	ø 15, 5/8" (15,875), 16, 17, 18, 19, 20, 22, 23, 24, 1" (25,4), 28 mm
Shaft loading (axial and radial):	30 N max.
Shaft rotational speed:	6000 rpm max.
Starting torque at 20°C:	≤ 1,5 Ncm (typical)
Moment of inertia:	~30 gcm <sup>2</sup>
Bearings life:	10 <sup>9</sup> rev. min.
Weight:	~ 0,4 kg (14,1 oz)

## ELECTRICAL SPECIFICATIONS

STD pulse rate: (other PPR upon request)	12-100-200-360-400-500-1000-1024-2000-2048
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 and against short-circuit (except Line Driver version)
Optoelectronic life:	100.000 hrs min.

## MATERIALS

Flange:	die cast aluminium (UNI EN 46100)
Housing:	die cast aluminium (UNI EN 46100)
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic 1.4305 (UNI EN 10088-1)
Light source:	GaAl diodes

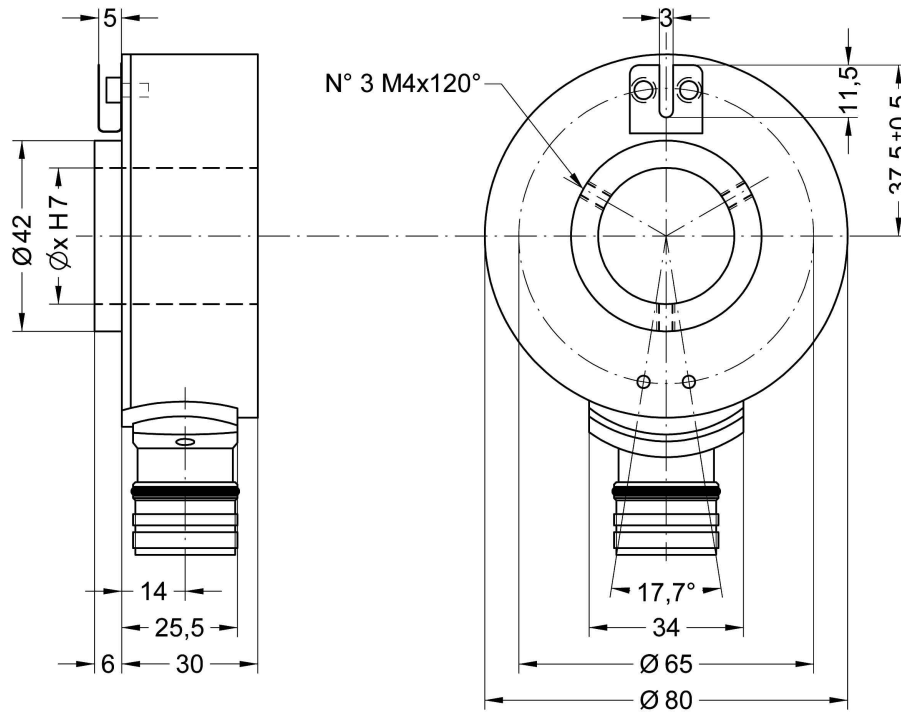
## ELECTRICAL CONNECTIONS

1	2	3	Function
Brown	Yellow	1	A
-	Blue	2	/A
Blue	Green	3	B
-	Orange	4	/B
White	White	5	0
-	Grey	6	/0
Red	Red	7	+Vdc
Black	Black	8	0 Vdc GND

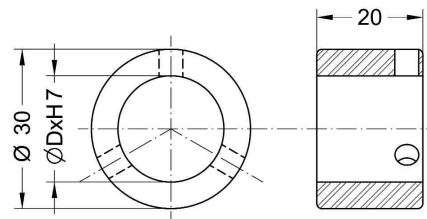
- 1 = Shielded cable LIKA 5x0,22 mm<sup>2</sup>  
 2 = Shielded cable LIKA 8x0,22 mm<sup>2</sup>  
 3 = EPFL121 M23 connector

## ACCESSORIES

EDE9S:	9 pin DSub mating connector
BR2-xx:	reducing sleeves
EPFL121:	12 pin M23 mating connector



C80



BR2

ORDERING CODE

ADDITIONAL CODE (indicate only if necessary)

XXX - X - XXXX  
 SERIES  
 C80

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  
 25 25 mm  
 30 30 mm

ELECTRICAL CONNECTIONS

N	Normal output	F	5 wires cable, 1m. (3.3 ft)
C	Complementary outputs	U	8 wires cable, 1m. (3.3 ft)
		Z	12 pin M23 connector

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 XX X  
 C Inline connector DSub 9 pin

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

K Operating temperature range:  
 -40°C + 100°C (-40°F + 212°F)

P IP65 Protection