

- Encoder for lift traction machines and big size motors
- Precise optical sensing
- Internal structure in stainless steel
- Hollow shaft from Ø 30 to Ø 44 mm
- Other fixing plates available on request



C81

ENVIRONMENTAL SPECIFICATIONS

Shock:	250 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 5-2000 Hz acc. to CEI EN 60068-2-6
Protection:	IP54
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-25°C +85°C (-13°F +185°F) (98% R.H. without condensation)
Options:	• Operating temperature range: -40°C +100°C (-40°F +212°F) • IP65 Protection (2000 rpm max, torque 2 Ncm)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Hollow shaft diameter:	Ø 30, 32, 34, 35, 38, 40, 42, 44 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, radial):	100 N max.
Shaft rotational speed:	max. 2000 rpm@70°C (158°F)/IP54, 3000 rpm@100°C (212°F)/IP54 max. 1500 rpm@70°C (158°F)/IP65, 2000 rpm@100°C (212°F)/IP65
Starting torque (at 20°C):	4 ÷ 12 Ncm (typical)
Misalignment:	± 0,3 mm radial ± 0,2 mm axial
Bearing life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with 20 N shaft loading max.)
Electrical connections:	cable output 1 m (3.3 ft), DSub inline connector
Weight:	~ 300 g (10,6 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

Resolution (PPR):	400-1024
Counting frequency:	100 kHz max.
Output circuits:	Push-Pull, Line Driver, Universal circuit
Power supply:	+5V ±5%, +10V +30V, +5V +30V
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

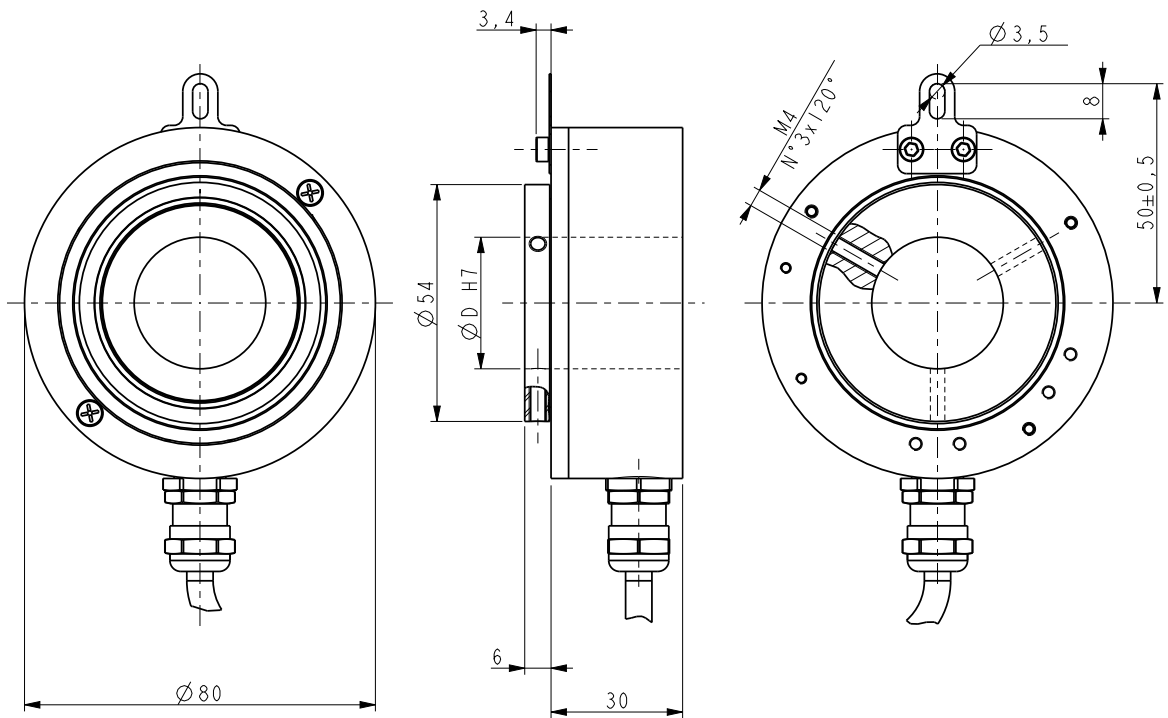
MATERIALS

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

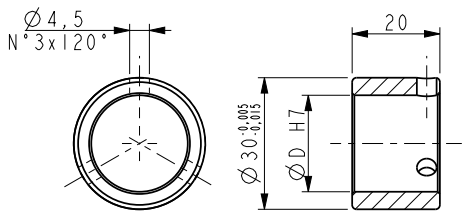


ACCESSORIES

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



C81



BR2-xx

Order code

C81	-	XX (a)	-	XXXXX (b)	-	XXX (c)	-	XX (d)	-	X (e)	X (f)	-	X (g)	XXXX (h)	/Sxxx (i)
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(a) OUTPUT CIRCUITS / POWER SUPPLY Y2 = Push Pull, +10V÷ +30V L1 = Line Driver (RS422), +5V±5% H4 = PP/LD universal circuit, +5V÷ +30V L2 = Line Driver (RS422), +10V÷ +30V	(d) 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)	(e) PROTECTION V = IP54 (standard) P = IP65	(h) CABLE LENGTH L010 = cable output 1 m L020 = cable output 2 m L070 = cable output 7 m Lxx0 = cable output x m (max. 10 m) Cxx0 = x m cable with DSub 9 pin inline plug
(b) RESOLUTION (PPR) See electrical specifications		(f) OPERATING TEMPERATURE T = -25°C +85°C (-13°F +185°F) (std.) K = -40°C +100°C (-40°F +212°F)	
(c) OUTPUT SIGNALS / CONNECTIONS BNF = AB, cable output ZNF = AB0, cable output BCU = AB /AB, cable output ZCU = AB0 /AB0, cable output		(g) CONNECTION POSITION R = radial	
(i) CUSTOM VERSION			

Document release	Date	Description
1.2	25.06.2025	Resolution update (deleted 300-500-4096 PPR)
1.1	19.03.2025	Resolution update (deleted 2500 PPR)
1.0	October 2023	New order code