

ROTAPULS

Incremental encoder

Series

C81



- 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



C81

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
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, 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)
Weight:	~ 300 g (10,6 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

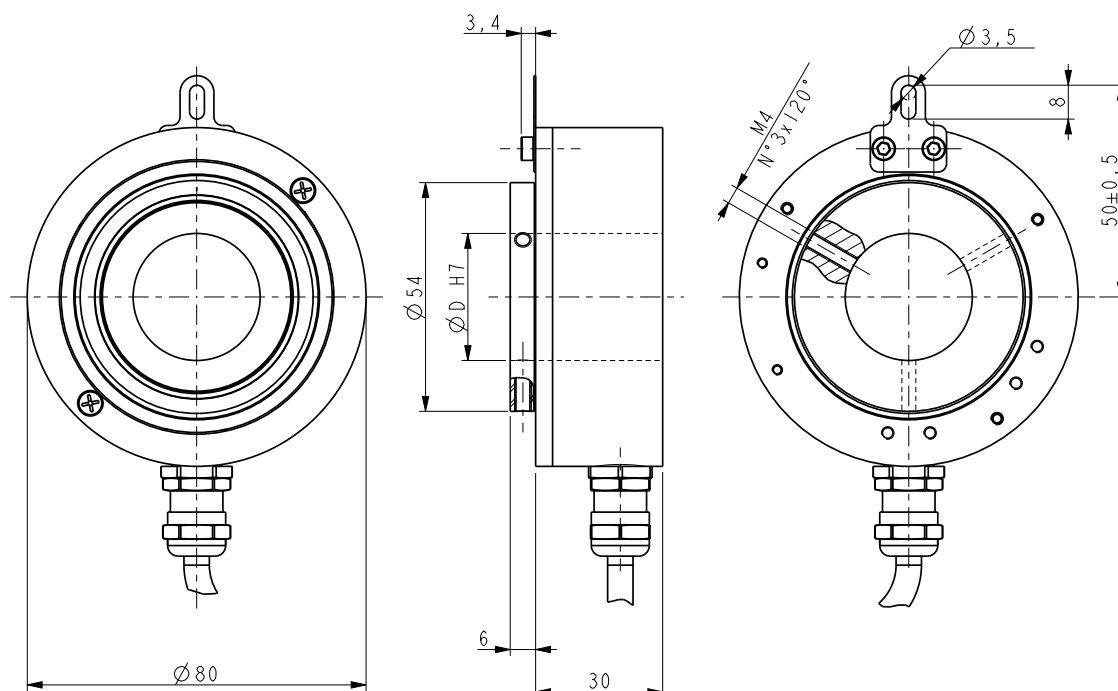
Resolution (PPR):	12-100-300-400-500-1024-2000-2048-2500-4096
Counting frequency:	100 kHz max.
Output circuits:	Push-Pull, Line Driver, Universal circuit
Power supply:	+5V ±5%, +10V +30V, +5V +30V
Consumption:	70 mA (typical)
Output current (each channel):	40 mA max.
Protection:	against inversion of polarity and short-circuit (except L circuit)
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 hrs min.
Option:	• Output freq. 200 kHz max.

MATERIALS

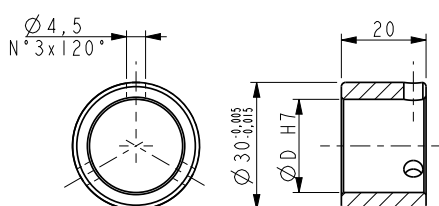
Flange:	steel, UNI EN 4305
Housing:	anticorodal, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic, UNI EN 4305
Light source:	GaAl diodes

ACCESSORIES

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



C81



BR2-xx

Order code

C81	-	X	-	XXXXX	XXX	XX	X	X	X	XX	/Sxxx
		(a)		(b)	(c)	(e)	(f)	(g)	(h)	(i)	(j)

(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 = AB0, cable output
BCU = AB /AB, cable output
ZCU = AB0 /AB0, cable output

(d) SUPPLY VOLTAGE

1 = +5V $\pm$ 5% (L output circuit)
2 = +10V $\div$ +30V (Y output circuit)
4 = +5V $\div$ +30V (H output circuit)

(e) SHAFT DIAMETER

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

(f) PROTECTION

- = IP64 (standard)
P = IP65

(g) COUNTING FREQUENCY

- = 100 kHz standard
W = 200 kHz

(h) OPERATING TEMPERATURE

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

(i) 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

(j) CUSTOM VERSION