

ROTAPULS

Incremental heavy-duty encoder

Series

C100

- Heavy-duty hollow shaft encoder
- Corrosion resistant, robust housing
- High shaft load and environmental protection
- Power outputs for long distance transmission
- M23 connector or screw terminals
- Electrical shaft insulation



C100

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms (acc. to MIL STD 202F)
Vibrations:	10 g, 5-2000 Hz (acc. to MIL STD 202F)
Protection:	IP65
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H. without condensation)
Option:	• Operating temperature range: -40°C +100°C (-40°F +212°F)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Hollow shaft diameter:	16 mm 17 mm tapered
Shaft loading:	axial: 140 N radial: 350 N
Shaft rotational speed:	6000 rpm max. (short periods)
Electrical shaft insulation:	2,5 kV max.
Bearings life:	> 10 ⁹ rev. min.
Electrical connections:	cable 1 m, M23 connector, screw terminals
Weight:	~ 1,1 kg (38,8 oz)

ELECTRICAL SPECIFICATIONS

Resolution:	1024-2048-2500
Accuracy:	phase shift 90° ±20° el. max. dividing error ± 50° el. max.
Counting frequency:	100 kHz max.
Output circuits:	Line Driver, Universal output PP/LD, Power Push-Pull, Power Line Driver
Power supply:	+5V ±5%, +10V +30V, +5V +30V
Consumption:	70 mA max.
Output current (each channel):	40 mA max.
Protection:	against inversion of polarity and against short-circuit (except Line Driver version)
EMC:	electro-magnetic emission (according to EN 61000-6-4) electro-magnetic immunity (according to EN 61000-6-2)
Optoelectronic life:	100.000 hrs min.

MATERIALS

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

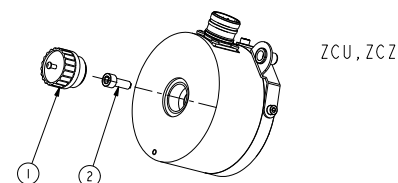
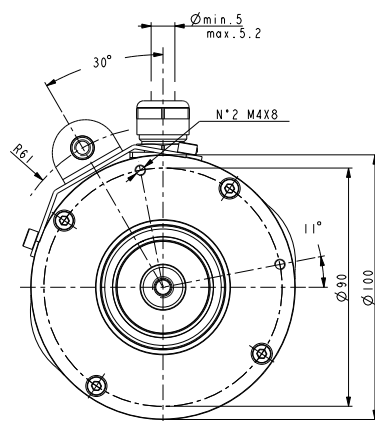
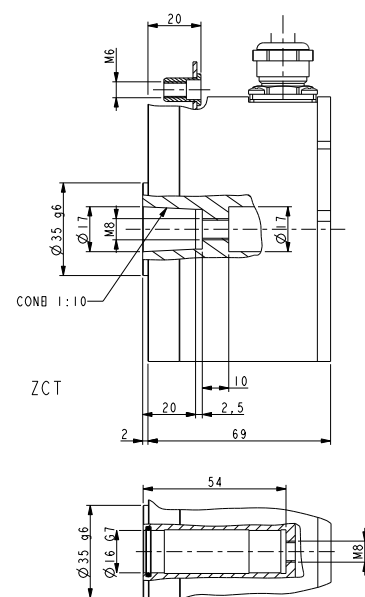
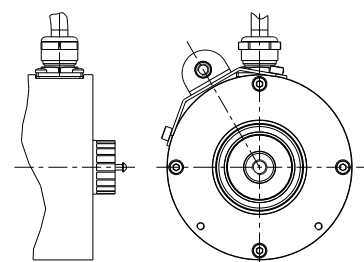
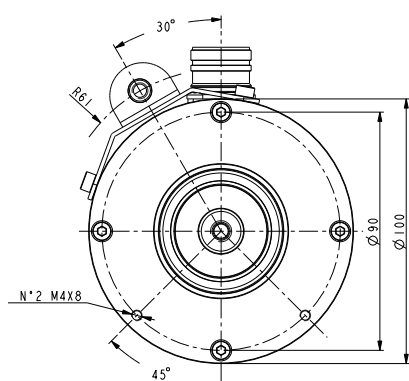
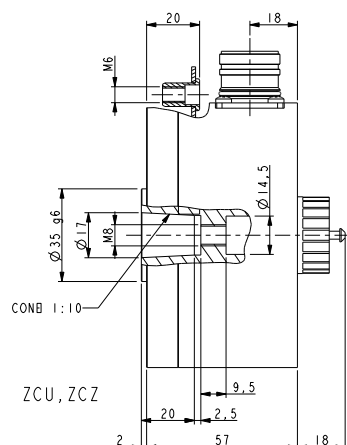
ELECTRICAL CONNECTIONS

Function	1	2
A	5	Yellow
/A	6	Blue
B	8	Green
/B	1	Orange
0	3	White
/0	4	Grey
+Vdc	12	Red
0Vdc GND	10	Black
Shield	Case	Shield

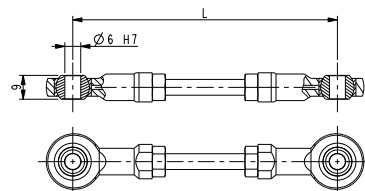
1 = EML121 M23 connector, 12 pin cw
2 = Shielded cable LIKA 8x0,22 mm²

TITOLO

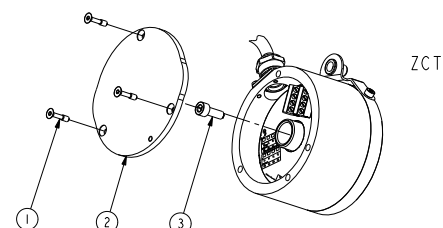
EPFL121:	mating connector
PF4284/xx:	torque arm



N°	DESCRIPTION
1	CAP
2	SHAFT FIXING SCRBW



PF4284/XXX



N°	DESCRIPTION
1	BACK COVER SCRBW
2	REMOVABLE BACK COVER
3	SHAFT FIXING SCRBW

C100

Order code

C100	-	X	-	XXXX	X	XX	X	XXX	X	XX	/Sxxx
		(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)

① OUTPUT CIRCUITS

L = Line Driver AD26LS31
H = PP/LD universal circuit
K = Power Line Driver
T = Power Push Pull

② PULSE RATE (PPR)

1024, 2048, 2500

③ OUTPUT SIGNALS

Z = ABO, /ABO

④ ELECTRICAL CONNECTIONS

CZ = M23 12 pin connector
CT = Screw terminals
CU = Cable output

⑤ SUPPLY VOLTAGE VS OUTPUT CIRCUIT

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

⑥ SHAFT DIAMETER

C17 = 17 mm tapered 1:10
16 = 16 mm

⑨ OPERATING TEMPERATURE RANGE

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

⑩ CABLE LENGTH

L1 = cable 1 m
Lx = cable x m

⑪ CUSTOM VERSION