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 trasmission
- M23 connector or screw terminals
- Electrical shaft insulation



C100

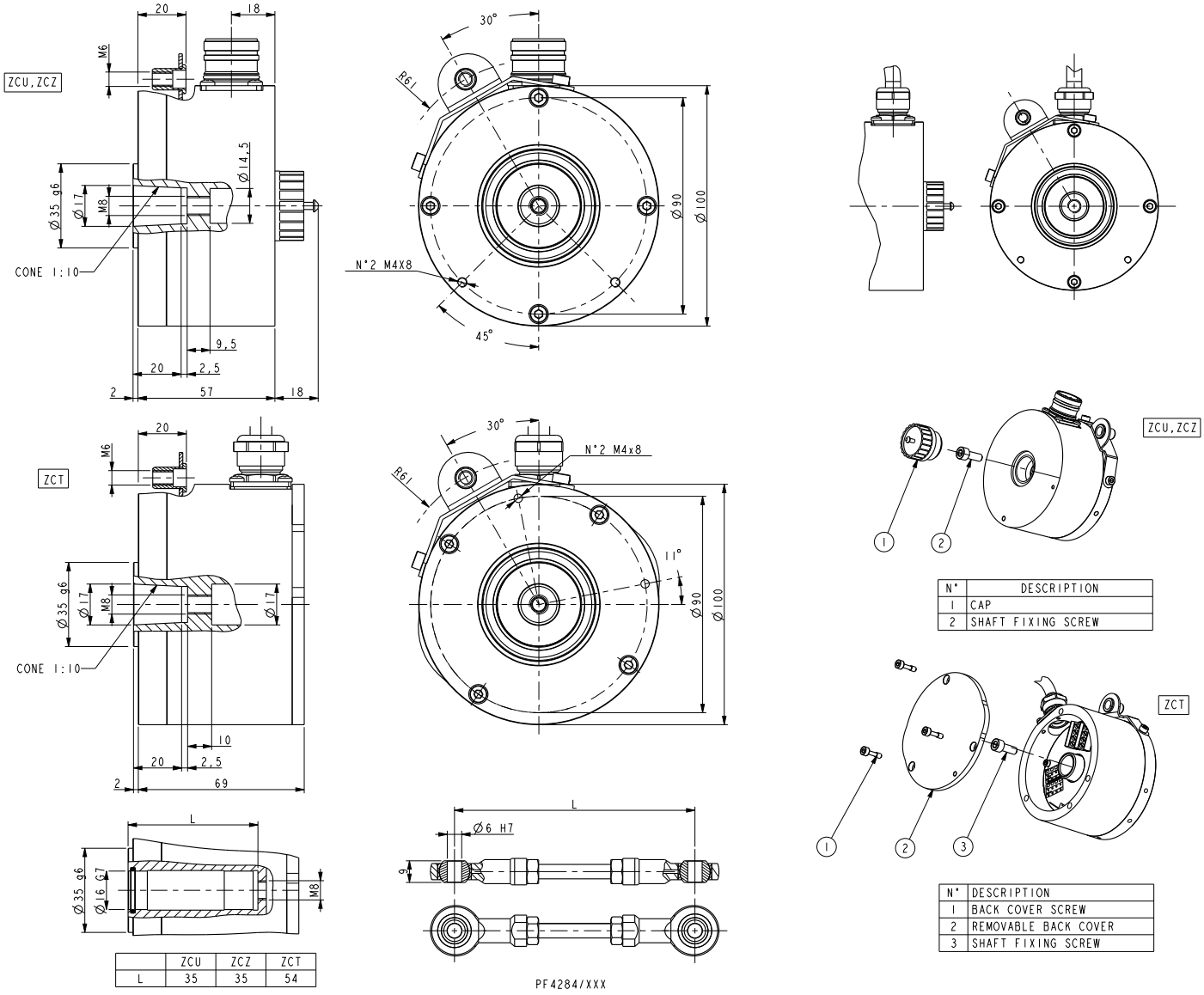
ENVIRONMENTAL SPECIFICATIONS	
Shock:	250 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 5-2000 Hz acc. to CEI EN 60068-2-6
Protection:	IP65
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H. without condensation)
Option:	• Operating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

MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Hollow shaft diameter:	Ø 16 mm 17 mm tapered
Shaft loading:	axial: 140 N radial: 350 N
Shaft rotational speed:	6000 rpm max. (short periods)
Electrical shaft insulation:	10 kV max.
Bearings life:	400 x 10^6 rev. min. (10^9 rev. min. with 20 N shaft loading max.)
Electrical connections:	M23 plug screw terminals cable output 1 m (3.3 ft)
Weight:	~ 1 kg (35 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS	
Resolution (PPR):	1024-2048-2500
Counting frequency:	100 kHz max.
Output circuits:	Power Push-Pull, Power Line Driver
Power supply:	+5V ±5%, +10V +30V
Consumption:	70 mA (typical)
Output current (each channel):	100 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:	anticorodal, UNI EN AW-6082, anodized
Housing:	anticorodal, UNI EN AW-6082, anodized
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic, UNI EN 4305

ACCESSORIES	
EPFL121:	12 pin M23 mating connector
EC-C12F-S19-M8-xxx:	cordset x m with M23 connector
PF4284/xx:	torque arm



	ZCU	ZCZ	ZCT
L	35	35	54

C100

Order code

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

ⓐ OUTPUT CIRCUITS
K1 = Power Line Driver, +5V±5%
T2 = Power Push Pull, +10V÷ +30V

ⓑ RESOLUTION (PPR)
01024, 02048, 02500

ⓒ OUTPUT SIGNALS / CONNECTIONS
ZCZ = AB0 /AB0, M23 12 pin plug
ZCT = AB0 /AB0, screw terminals *(not possible with 2500 PPR)*
ZCU = AB0 /AB0, cable output

ⓓ SHAFT DIAMETER
C7 = 17 mm tapered 1:10
16 = 16 mm

ⓔ PROTECTION
P = IP65

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

ⓖ CONNECTION POSITION
R = radial

ⓗ CABLE LENGTH (only with ZCU)
L010 = cable output 1 m
Lxx0 = cable output x m (max. length 10 m)

ⓘ CUSTOM VERSION

Document release	Date	Description
1.2	04.08.2025	New order code
1.1	04.08.2022	Output signals/Connections updating (ZCT)