

# 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  |
| Vibrations:                  | 10 g, 5-2000 Hz  |
| Protection:                  | IP65   |
| Operating temperature range: | -25°C +85°C (-13°F +185°F)                                     |
| Storage temperature range:   | -40°C +100°C (-40°F +212°F)<br>(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<br>17 mm tapered   |
| Shaft loading:               | axial: 140 N<br>radial: 350 N  |
| Shaft rotational speed:      | 6000 rpm max. (short periods)  |
| Electrical shaft insulation: | 10 kV max.   |
| Bearings life:               | 400 x 10 <sup>6</sup> rev. min. (10 <sup>9</sup> rev. min. with 20 N shaft loading max.) |
| Electrical connections:      | M23 plug, screw terminals or cable output 1 m (3.3 ft)                                   |
| Weight:                      | ~ 1 kg (35 oz)   |
| Option:                      | • additional cable   |

## ELECTRICAL SPECIFICATIONS

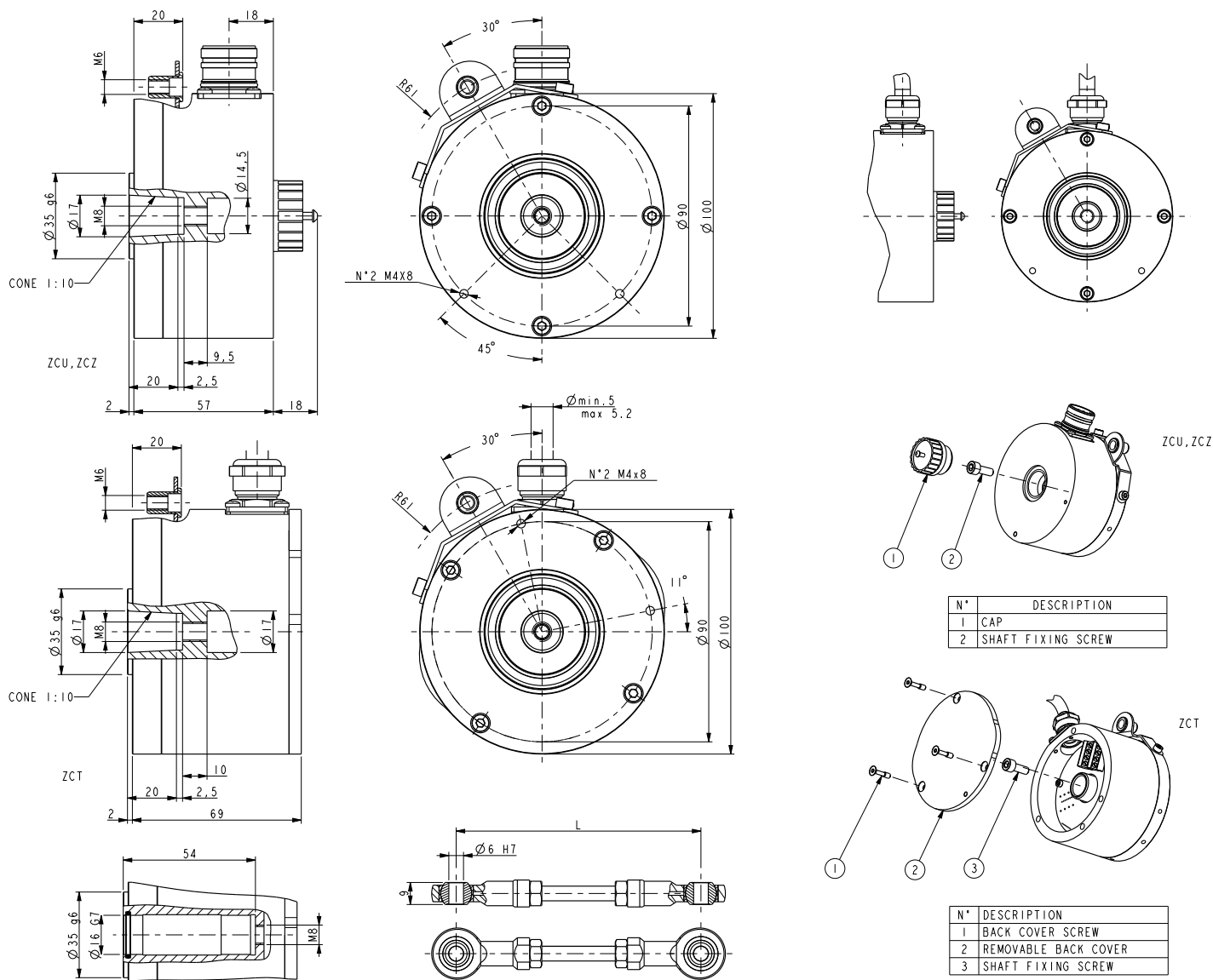
|                                |   |
|--------------------------------|---|
| Resolution (PPR):              | 1024-2048-2500  |
| Counting frequency:            | 100 kHz max.  |
| Output circuits:               | Power Push-Pull, Line Driver, Power Line Driver, Universal circuit    |
| Power supply:                  | +5V ±5%, +10V +30V, +5V +30V  |
| Consumption:                   | 70 mA (typical)   |
| Output current (each channel): | 100 mA max.   |
| Protection:                    | against inversion of polarity and short-circuit<br>(except L circuit) |
| EMC:                           | electro-magnetic immunity, according to EN 61000-4-2<br>EN 61000-4-4  |
| 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                                |

## ACCESSORIES

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



PF4284/XXX

C100

Order code

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

(a) OUTPUT CIRCUITS

L = Line Driver (RS422)  
 H = PP/LD universal circuit  
 K = Power Line Driver  
 T = Power Push Pull

(b) RESOLUTION (PPR)

1024, 2048, 2500

(c) OUTPUT SIGNALS / CONNECTIONS

ZCZ = AB0 /AB0, M23 12 pin plug  
 ZCT = AB0 /AB0, screw terminals  
 ZCU = AB0 /AB0, cable output

(d) SUPPLY VOLTAGE

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

(e) SHAFT DIAMETER

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

(f) OPERATING TEMPERATURE RANGE

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

(g) CABLE LENGTH (only with ZCU)

L1 = cable output 1 m  
 Lx = cable output x m

(h) CUSTOM VERSION