

- Encoder for elevator motors
- Precise optical sensing
- Operating temperature up to -40°C +100°C
- Resolution up to 4096 PPR
- Hollow shaft Ø 45 mm
- Other fixing plates available on request



C83

### 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:	<ul style="list-style-type: none"> <li>• Operating temperature range: -40°C +100°C (-40°F +212°F)</li> <li>• IP65 Protection (2000 rpm max, torque 2 Ncm)</li> </ul>

### MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft hollow:	Ø 45 mm
Shaft loading:	axial: 100 N max. radial: 200 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
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 12 pin plug or cable output 1 m (3.3 ft)
Weight:	~ 0,3 kg (10,6 oz)
Option:	• additional cable

### ELECTRICAL SPECIFICATIONS

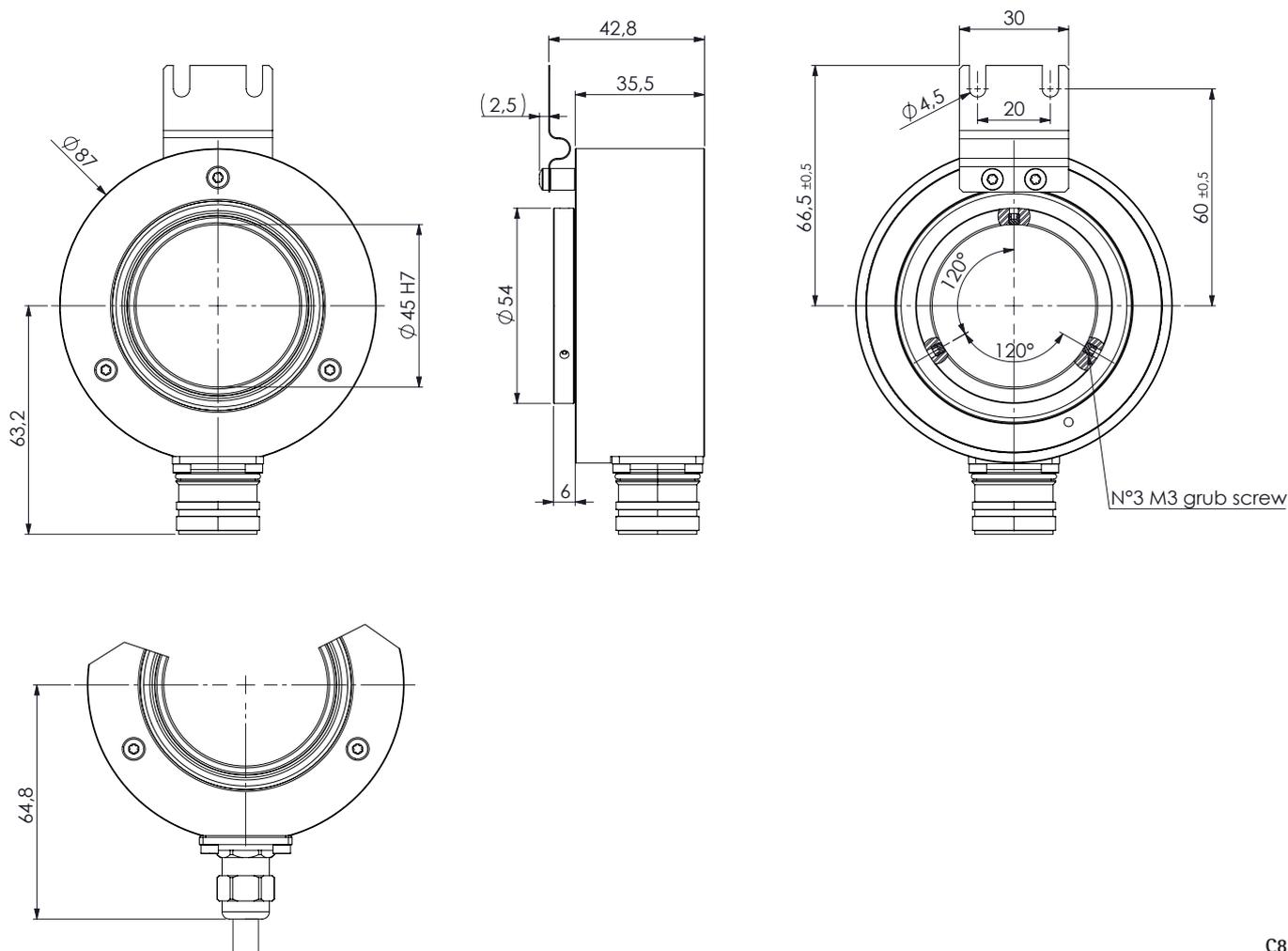
Resolution (PPR):	1024-2048-4096
Counting frequency:	300 kHz max.
Output circuits:	Push-Pull, Line Driver, Universal circuit
Power supply:	+5V ±5%, +10V +30V, +5V +30V
Consumption:	70 mA (typical)
Output current (each channel):	40 mA max.
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4

### MATERIALS

Flange:	anticorrosive, UNI EN AW-6082
Housing:	die cast aluminium, UNI EN AC-46100
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic, UNI EN 4305

### ACCESSORIES

EC-C12F-LK-I8-050:	Cordset 5m with M23 connector
EC-C12F-LK-I8-100:	Cordset 10m with M23 connector
EPFL121:	M23 12 pin mating connector



C83

Order code

C83	-	XX	-	XXXXX	-	XXX	-	XX	-	X	X	-	X	XXXX	/Sxxx
		(a)		(b)		(c)		(d)		(e)	(f)		(g)	(h)	(i)

<p><b>(a) OUTPUT CIRCUITS / POWER SUPPLY</b>                  Y2 = Push Pull, +10V ÷ +30V                  L1 = Line Driver (RS422), +5V ± 5%                  H4 = PP/LD universal circuit, +5V ÷ +30V                  L2 = Line Driver (RS422), +10V ÷ +30V</p> <p><b>(b) RESOLUTION (PPR)</b>                  See electrical specifications</p>	<p><b>(c) OUTPUT SIGNALS / CONNECTIONS</b>                  BNF = AB, cable output                  ZNF = AB0, cable output                  BCU = AB /AB, cable output                  ZCU = AB0 /AB0, cable output                  BCZ = AB /AB, M23 12 pin plug                  ZCZ = AB0 /AB0, M23 12 pin plug</p>	<p><b>(d) SHAFT DIAMETER</b>                  45 = 45 mm</p> <p><b>(e) PROTECTION</b>                  V = IP54 (standard)                  P = IP65</p> <p><b>(f) OPERATING TEMP.</b>                  T = -25°C +85°C (-13°F +185°F)                  K = -40°C +100°C (-40°F +212°F)</p> <p><b>(g) CONNECTION POSITION</b>                  R = radial</p>	<p><b>(h) CABLE LENGTH</b>                  L010 = cable output 1 m                  L020 = cable output 2 m                  L070 = cable output 7 m                  Lxx0 = cable output x m (max. 10 m)                  Cxxx = x dm cable with DSub 9 pin inline plug</p>
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**(i) CUSTOM VERSION**

Document release	Date	Description
1.0	11.03.2026	Firts issue