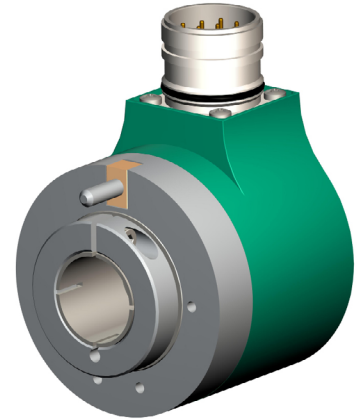


- Compact encoder with $\varnothing 20$ mm hollow shaft
- Single turn up to 8192 cpr
- True multi turn (without battery backup)
- Cable and connector output
- Rugged design with IP67 protection and fixing clamp



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ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP67, IP65 shaft side
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:	$\varnothing 20$ mm
Shaft loading (axial, radial):	100 N max.
Shaft rotational speed:	12000 rpm, 9000 rpm continuous operation
Starting torque (at 20°C):	0,5 Ncm (typ.)
Bearings life:	400 x10 ⁶ rev. min. (10 ⁹ rev. min. with 20 N shaft loading max.)
Electrical connections:	M12, M23 plug or cable 2 m (6.56 ft)
Weight:	~ 250 g (8,8 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

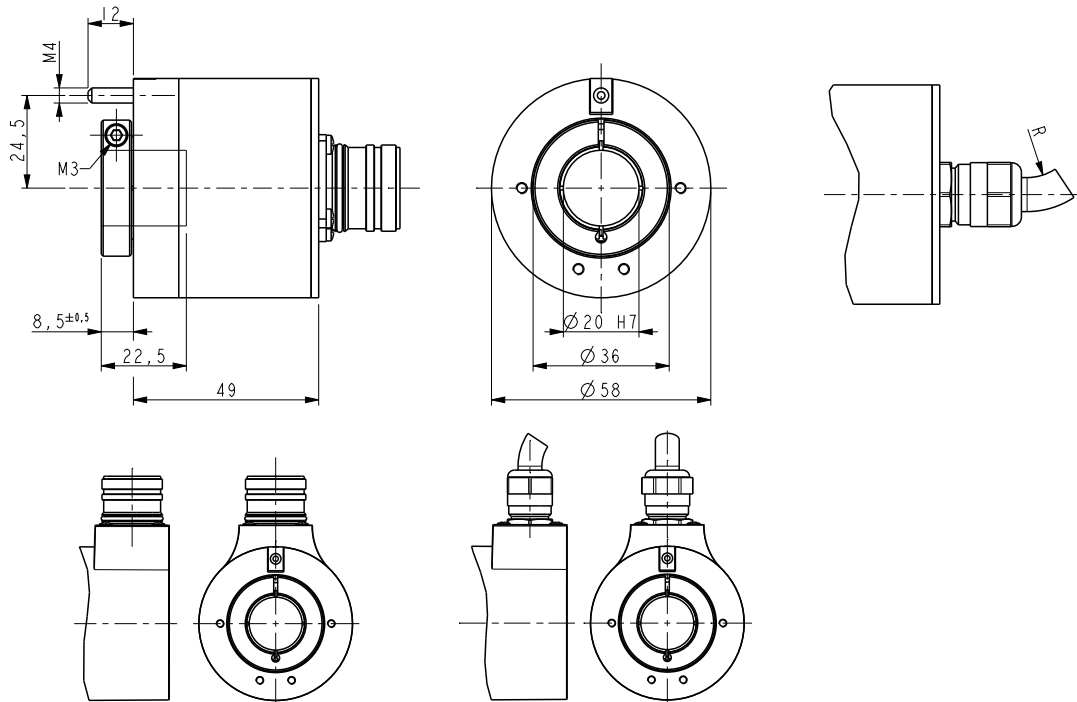
Resolution:	single turn = 1024, 4096, 8192 cpr multi turn = 4096, 16384 turns
Accuracy:	$\pm 0,5^\circ$
Output circuits:	SSI (RS422)
Output code:	Gray, Binary
Counting frequency:	10 kHz
Power supply:	+7,5Vdc \div 34Vdc
Power consumption:	1 W
Protection:	against inversion of polarity, short-circuit
EMC:	electro-magnetic immunity, according to EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	> 100.000 h
Functions:	• counting direction (input) • Zero setting/Preset (input)

MATERIALS

Flange:	anticorrosive, UNI EN AW-6082
Housing:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305

ACCESSORIES

EPFL121H:	M23 12 pin connector
EM12F8:	M12 8 pin mating connector
EC-CR12F-S28-T12-5:	cordset 5 m with M23 connector
EC-CR12F-S28-T12-10:	cordset 10 m with M23 connector
EC-M12F8-LK-M8-5:	cordset 5 m with M12 connector
EC-M12F8-LK-M8-10:	cordset 10 m with M12 connector



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Order code - Single turn version

ESC61	XX Ⓐ	/	XX Ⓒ	-	XX Ⓒ	-	X Ⓓ	X Ⓕ	XXX Ⓖ	/Sxxx Ⓗ
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Ⓐ RESOLUTION

10 = 1024 cpr
12 = 4096 cpr
13 = 8192 cpr

Ⓑ OUTPUT

BS = Binary, SSI tree format
BA = Binary, SSI LSB aligned
GS = Gray, SSI tree format
GA = Gray, SSI LSB aligned

Ⓒ SHAFT DIAMETER

20 = 20 mm

Ⓓ OPERATING TEMP. RANGE

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

Ⓔ CONNECTION POSITION

- = axial
R = radial

Ⓕ CONNECTIONS

L2 = cable output 2 m (standard)
L5 = cable output 5 m
L10 = cable output 10 m
M2 = M23 plug
M = M12 8 pin plug

Ⓖ CUSTOM VERSION

Order code - Multi turn version

EMC61	XX Ⓐ	/	XXXX Ⓑ	XX Ⓒ	-	XX Ⓓ	-	X Ⓔ	X Ⓕ	XXX Ⓖ	/Sxxx Ⓗ
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Ⓐ RESOLUTION

10 = 1024 cpr
12 = 4096 cpr
13 = 8192 cpr

Ⓑ REVOLUTIONS

4096 = 4096 turns
16384 = 16384 turns
(16384 only with SSI LSB aligned)

Ⓒ OUTPUT

BS = Binary, SSI tree format
BA = Binary, SSI LSB aligned
GS = Gray, SSI tree format
GA = Gray, SSI LSB aligned

Ⓓ SHAFT DIAMETER

20 = 20 mm

Ⓔ OPERATING TEMP. RANGE

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

Ⓕ CONNECTION POSITION

- = axial
R = radial

Ⓖ CONNECTIONS

L2 = cable output 2 m (standard)
L5 = cable output 5 m
L10 = cable output 10 m
M2 = M23 plug
M = M12 8 pin plug

Ⓗ CUSTOM VERSION