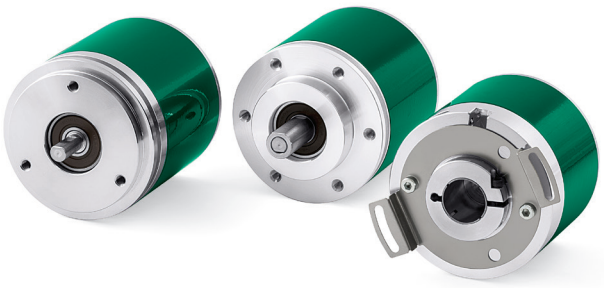
Series **EM58 PA • EM58S PA • EMC58 PA**

- Programmable analogue output
- 0-5V, 0-10V, -5/+5V, -10/+10V, 4-20mA, 0-20mA, 0-24mA
- Multiturn up to 16384 rev.
- Teach-in function
- Programmable overrun mode
- RS232 service interface
- Programmable via USB cable with IF92 interface



EM58 PA • EM58S PA • EMC59 PA

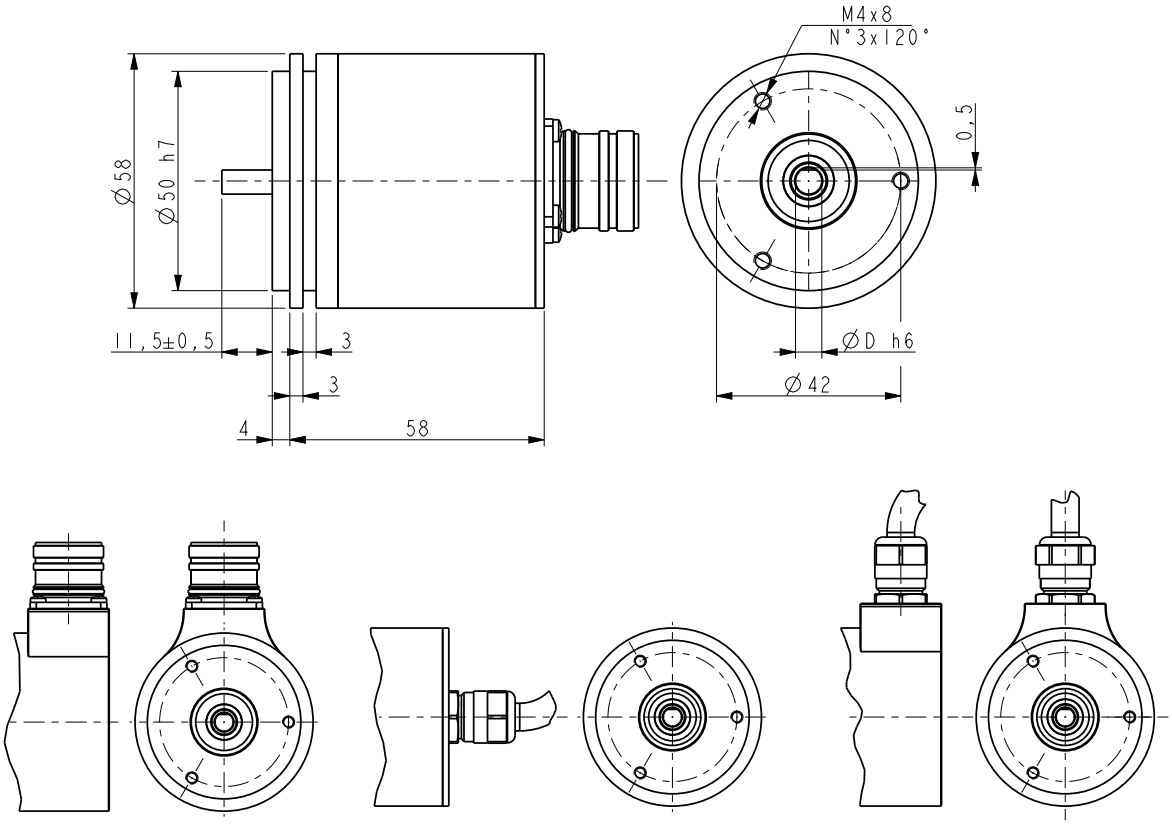
ENVIRONMENTAL SPECIFICATIONS	
Shock:	250 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 5-2000 Hz acc. to CEI EN 60068-2-6
Protection:	IP67, IP65 shaft side
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H. without condensation)

MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Hollow shaft diameter:	Ø 14, 15 mm
Reducing sleeves BR1-xx from Ø 15 mm to:	Ø 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	100 N max.
Shaft rotational speed:	12000 rpm, 9000 rpm continuous operation
Bearing life:	400 x10^6 rev. min. (10^9 rev. min. with 20 N shaft loading max.)
Electrical connections:	M12, M23 plug or cable output 2 m (6.56 ft)
Weight:	~ 300 g (10,6 oz)
Option:	• additional cable

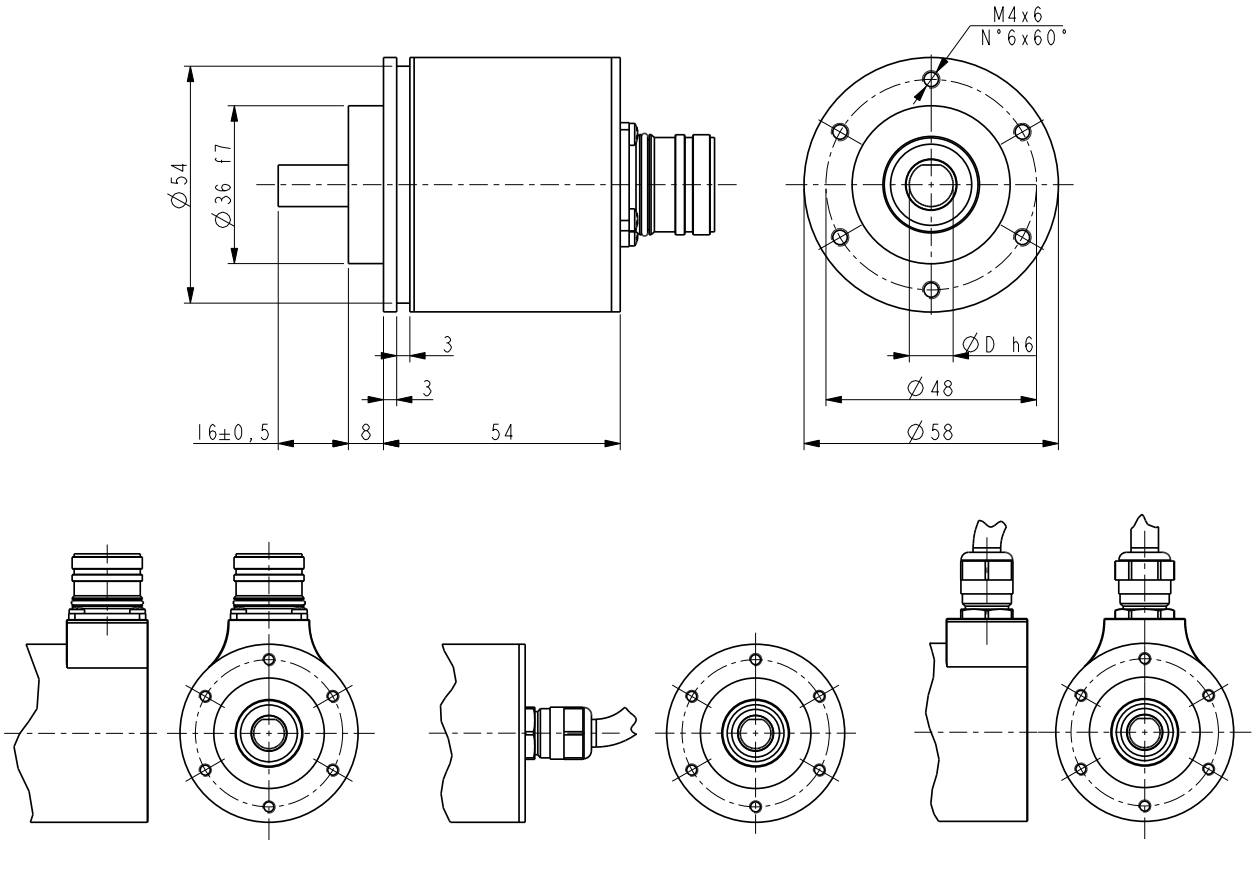
ELECTRICAL SPECIFICATIONS	
Resolution:	4096 cpr x 16384 turns
Accuracy:	± 0,04°
Output circuits:	programmable 0-5V, 0-10V, -5/+5V, -10/+10V, 4-20mA, 0-20mA, 0-24mA
Counting frequency:	> 150 kHz
Power supply:	+13Vdc ÷ 30Vdc
Power consumption:	1,3 W max.
Start-up time:	~ 40 ms
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	> 100.000 h
Functions:	• Programmable resolution • Teach-in of resolution • Counting direction (programmable + input) • Zero setting (programmable + input) • Programmable overrun

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

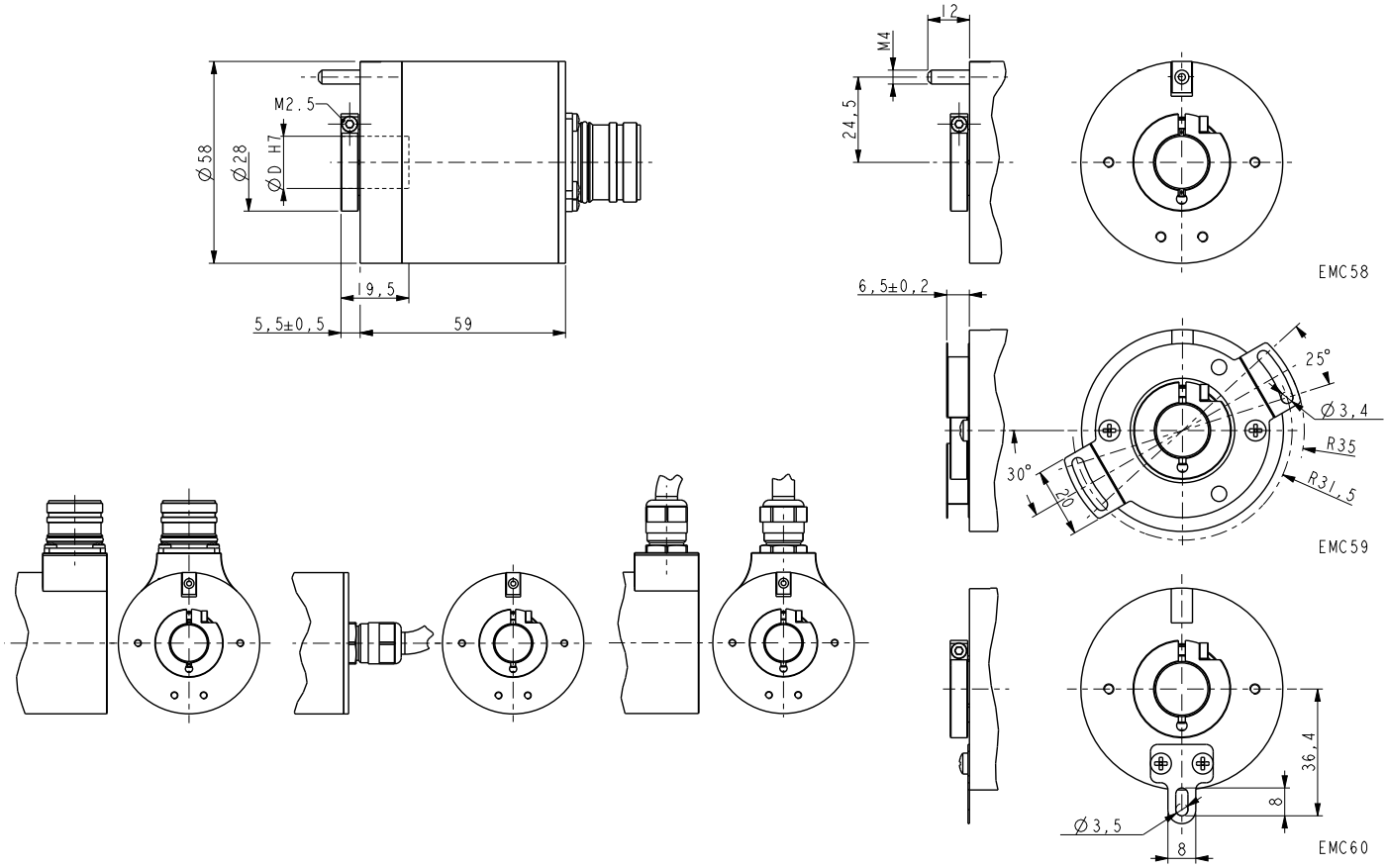
ACCESSORIES	
EPFL121H:	M23 12 pin connector
E-M12F12:	M12 12 pin connector
PAN/PGF:	flexible couplings
BR1:	reducing sleeves
EC-M12F12-LK-T12-xxx:	M12 cordset with xx m cable
EC-CR12F-S28-T12-xxx:	M23 cordset with xx m cable
IF92:	Programming box with USB conn.
EC-M12F12-S69-I5-L005:	M12 programming cable
EC-CR12F-S68-I5-L005:	M23 programming cable
LKM-386:	fixing clamps



EM58 PA



EM58S PA



Order code

EM58 EM58S EMC58 EMC59 EMC60	XX-XX ⓐ	-	XXX ⓑ	-	XX ⓒ	-	X ⓓ	X ⓔ	-	X ⓕ	XXXX ⓖ	/Sxxx - /Pxxx ⓗ

ⓐ **RESOLUTION**
(BIT SINGLETURN - BIT MULTITURN)
12-14 = 12x14 bit (4096 cpr x 16384 turns)

ⓑ **INTERFACE / POWER SUPPLY**
PA2 = Programmable analogue, +13 +30Vdc

ⓒ **SHAFT DIAMETER**
06 = 6 mm
08 = 8 mm
P9 = 9.52mm / 3/8"
10 = 10 mm
12 = 12 mm
14 = 14 mm (EMCxx)
15 = 15 mm (EMCxx)

ⓓ **PROTECTION**
P = IP67, IP65 shaft side

ⓔ **OPER. TEMP. RANGE**
T = -25°C +85°C (-13°F +185°F)

ⓕ **CONNECTION POSITION**
A = axial
R = radial

ⓖ **CONNECTION TYPE & CABLE LENGTH**
L020 = cable output 2 m (standard)
Lxx0 = cable out. x m (max. length 10m)
L100 = cable output 10 m
M1 = M12, 12 pin plug
M2 = M23, 12 pin plug

ⓗ
/Sxxx: Custom version
/Pxxx: Factory programmed encoder on customer request

Document release	Date	Description
1.2	5.08.2025	New order code
1.1	19.03.2021	Accessories review