

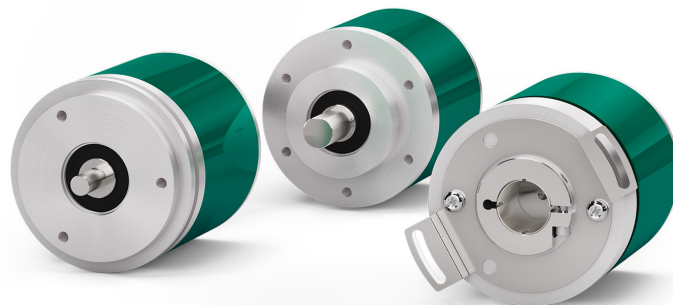
- Replacement version of:

ES58, ES58S, ESC58, ESC59 → EHM58

EM58, EM58S, EMC58, EMC59 → EHM58

HS58, HS58S, HSC58, HSC59 → EHO58

HM58, HM58S, HMC58, HMC59 → EHO58



EHO58 • EHM58

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)
Option:	• Operating temperature range: -40°C +100°C (-40°F +212°F) (only for R. EHM58 series)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Hollow shaft diameter:	Ø 14, 15 mm
Shaft loading (axial, radial):	20 N max.
Shaft rotational speed:	12000 rpm
Starting torque (at 20°C):	0,1 Ncm
Electrical connections:	MIL 7, MIL 10, M12, M23 plug or cable output 1 m (3.3 ft)
Weight:	~ 100 g (3,5 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

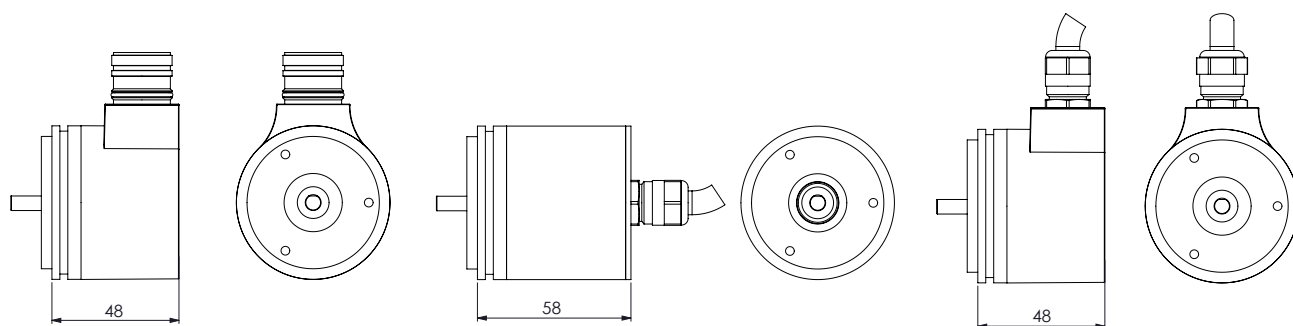
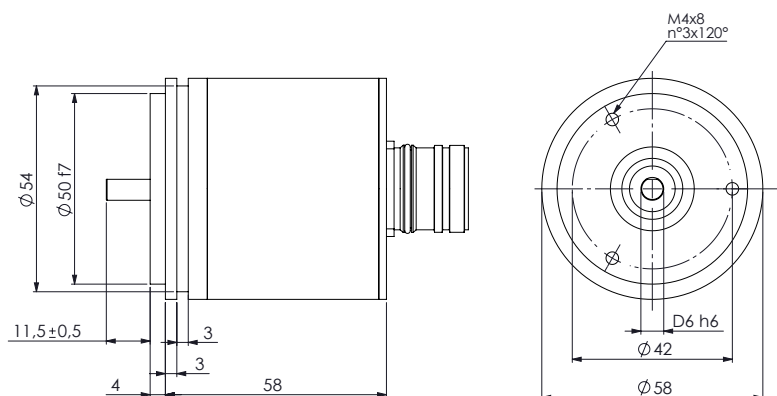
Resolution:	singleturn up to 20 bit (1048576 cpr) multiturn up to 14 bit (16384 turns) <i>others on request</i>
Accuracy:	EHM58 ± 0,09°; EHO58 ± 0,01°
Output circuits:	SSI (RS422), clock rate < 4 MHz - Data refresh rate 8 µec. BiSS-C, clock rate < 10 MHz - Costant processing time (t _{busy} = 8 µec.) AB Push-Pull/Line Driver 2048 PPR
Output code:	Gray, Binary
Power supply:	+5Vdc +30Vdc
Power consumption:	0,5 W
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to EN 61000-4-2 EN 61000-4-4
Functions:	• Counting direction (input) • Zero setting/Preset (input)

MATERIALS

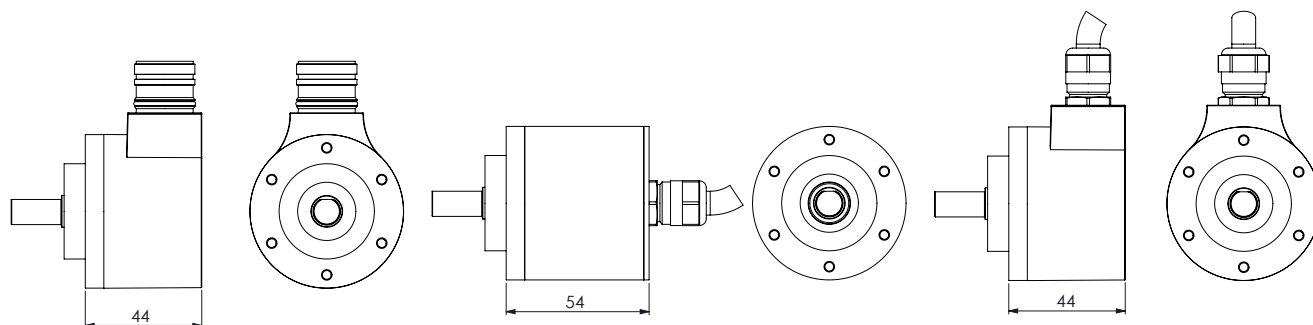
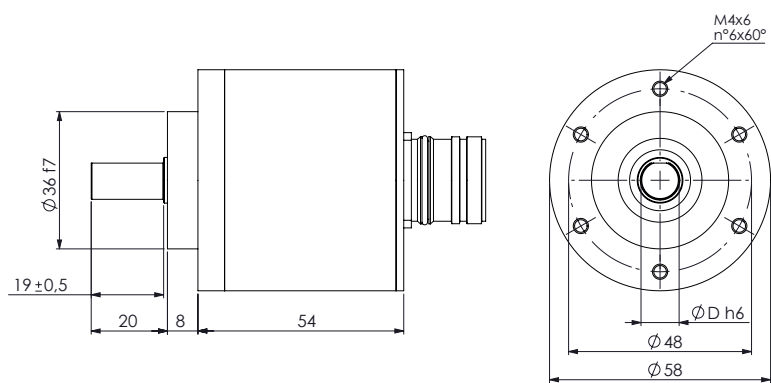
Flange:	anticorodal, UNI EN AW-6082
Housing:	anticorodal, UNI EN AW-6082 or zamac die cast
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305

ACCESSORIES

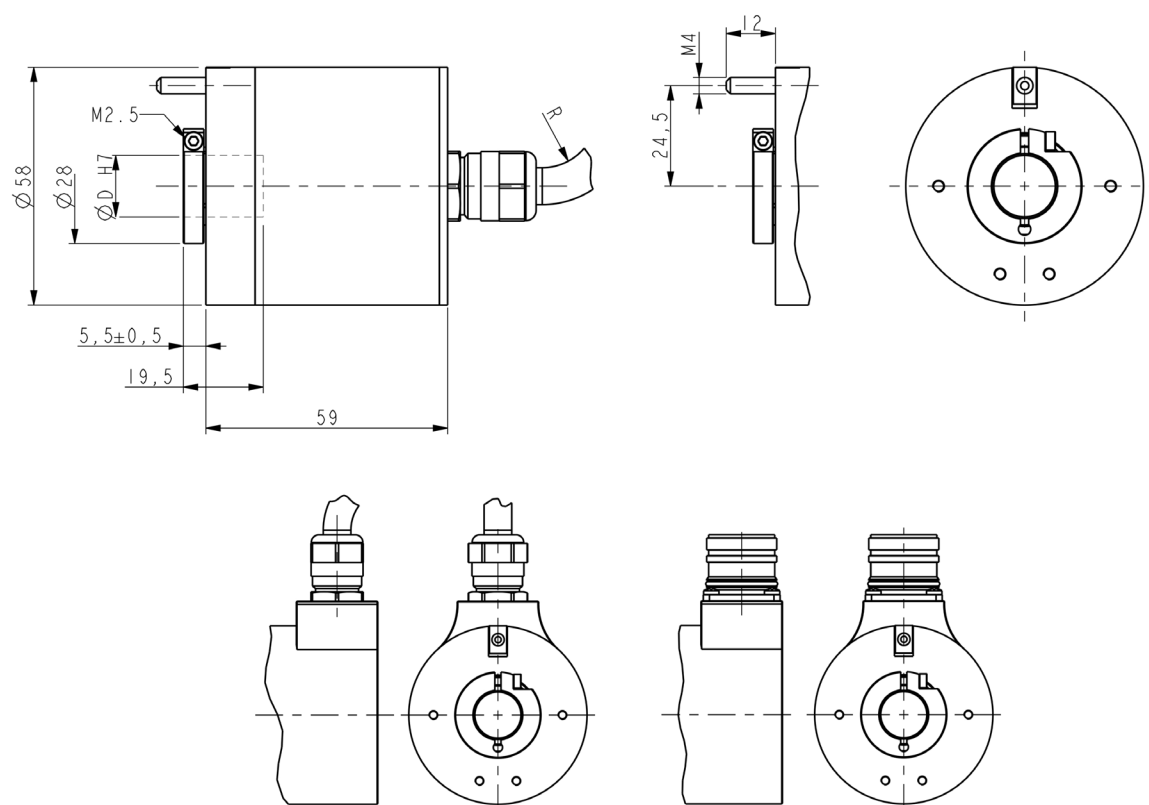
PAN/PGF:	flexible couplings
BR1:	reducing sleeves
LKM-386:	fixing clamps
KIT xx60:	fixing plate (ESC60/EMC60 compatible)
E-M12F8:	M12 8 pin mating connector
EC-M12F8-LK-M8-L050:	M12 8 pin cordset, 5 m cable
EC-M12F8-LK-M8-L100:	M12 8 pin cordset, 10 m cable
EC-M12F8-LK-M8-L150:	M12 8 pin cordset, 15 m cable
EC-M12F8-LK-M8-L200:	M12 8 pin cordset, 20 m cable
E-M12F12:	M12 12 pin mating connector
EC-M12F12-LK-T12-L050:	M12 12 pin cordset, 5 m cable
EC-M12F12-LK-T12-L100:	M12 12 pin cordset, 10 m cable
EC-M12F12-LK-T12-L200:	M12 12 pin cordset, 20 m cable
EPFL121H:	M23 12 pin mating connector
EC-CR12F-S28-T12-L100:	M23 12 pin cordset, 10 m cable
EC-CR12F-S28-T12-L200:	M23 12 pin cordset, 20 m cable



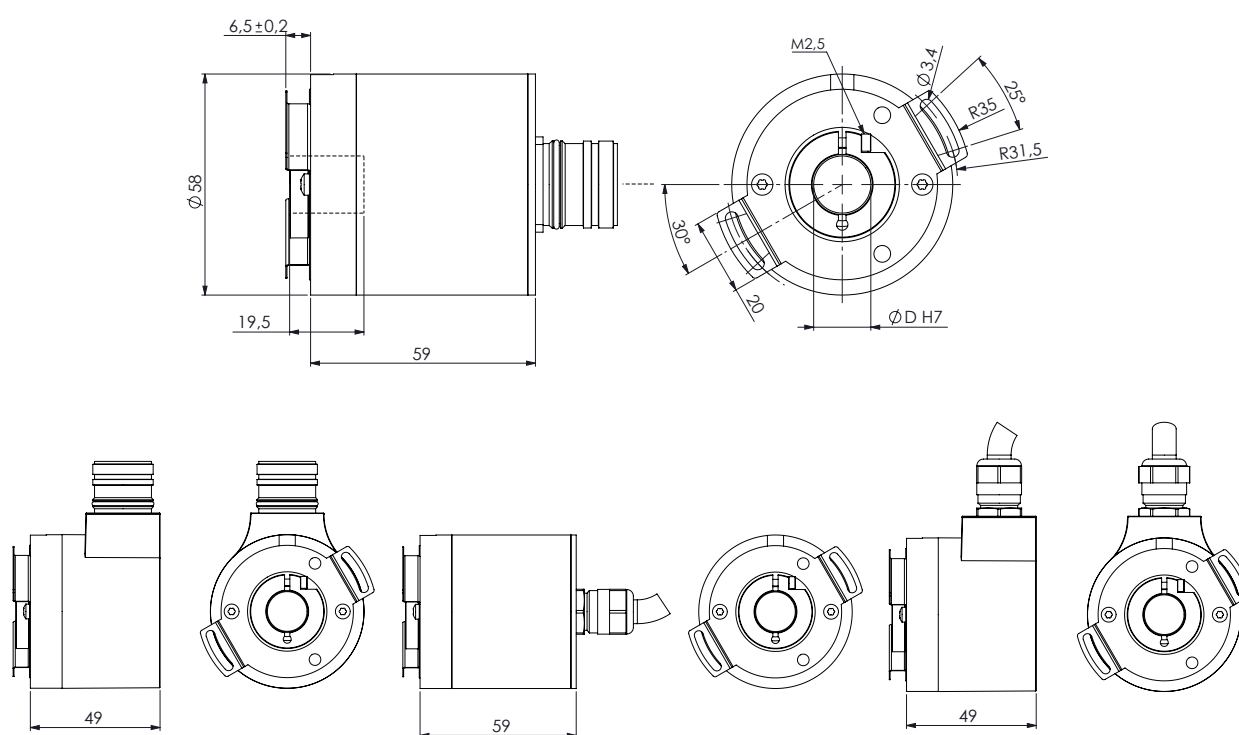
R.EHM58 • R.EH058



R.EHM58S • R.EH058S



R.EHM58C • R.EH058C



R.EHM59C • R.EH059C

Order code - Magnetic version

R.	EHM58 EHM58S EHM58C EHM59C	XX (a)	-	XX (b)	-	XXX (c)	-	XX (d)	-	X (e)	X (f)	X (g)	-	X (h)	XXXX (i)	/Sxxx (j)
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Ⓐ RESOLUTION

04 ... 07

08 = 8 bit (256 cpr)

09 = 9 bit (512 cpr)

10 = 10 bit (1024 cpr)

11 = 11 bit (2048 cpr)

12 = 12 bit (4096 cpr)

13 = 13 bit (8192 cpr)

36 = 360 info/turn (only with revolutions 00)

72 = 720 info/turn (only with revolutions 00)

81 = 3600 info/turn (only with revolutions 00)

Ⓑ REVOLUTIONS

00 = 1 turn (singleturn)

04 = 16 turns

08 = 256 turns

12 = 4096 turns

other rev. on request

Ⓒ OUTPUT

BS4 = Binary, SSI tree format, +5+30Vdc

BA4 = Binary, SSI LSB aligned, +5 +30Vdc

GS4 = Gray, SSI tree format, +5 +30Vdc

GA4 = Gray, SSI LSB aligned, +5 +30Vdc

Ⓓ SHAFT DIAMETER

06 = 6 mm

08 = 8 mm

P9 = 9.52mm / 3/8"

10 = 10 mm

12 = 12 mm

14 = 14 mm (R.EHM58C, R.EHM59C)

15 = 15 mm (R.EHM58C, R.EHM59C)

Ⓔ PARITY BIT

B = Parity bit (option)

- = no parity bit

Ⓕ PROTECTION

P = IP67, IP65 shaft side

Ⓖ OPERATING TEMP. RANGE

T = -25°C +85°C (-13°F +185°F)

K = -40°C +100°C (-40°F +212°F)

Ⓗ CONNECTION POSITION

A = axial

R = radial

Ⓘ CONNECTIONS

L010 = cable output 1 m (standard)

Lxx0 = cable output x m

D002 = 0,2 m cable + MIL 7 pin inline plug

P002 = 0,2 m cable + MIL 10 pin inline plug

M2 = M23 12 pin plug

M8 = M12 8 pin plug

Ⓢ CUSTOM VERSION

Order code - Optical version

R.	EH058 EH058S EH058C EH059C	-	XX-XX (a)	-	XXX (b)	-	XX (c)	-	X (d)	X (e)	-	X (f)	XXXX (g)	/Sxxx (h)
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Ⓐ RESOLUTION

(BIT SINGLETURN-BIT MULTITURN)

13-00 = 13 bit (8192 cpr)

16-00 = 16 bit (65536 cpr)

18-00 = 18 bit (262144 cpr)

19-00 = 19 bit (524288 cpr)

20-00 = 20 bit (1048576 cpr)

13-12 = 13 x 12 bit (8192 cpr x 4096 turns)

16-14 = 16 x 14 bit (65536 cpr x 16384 turns)

Ⓑ INTERFACE / POWER SUPPLY

GV4 = SSI, LSB aligned, Gray code + 512 PPR sin/cos, +5V +30V

BV4 = SSI, LSB aligned, Binary code + 512 PPR sin/cos, +5V +30V

GA4 = SSI, LSB aligned, Gray code, +5V +30V

BA4 = SSI, LSB aligned, Binary code, +5V +30V

GG4 = SSI, MSB aligned, Gray code, +5V +30V

BG4 = SSI, MSB aligned, Binary code, +5V +30V

SC4 = BiSS C-mode + 512 PPR sin/cos, +5V +30V

G14 = SSI, Gray code + 2048 PPR AB, /AB Line Driver, LSB aligned +5V +30V

G64 = SSI, Gray code + 2048 PPR AB, /AB Push-Pull, LSB aligned +5V +30V

Ⓒ SHAFT DIAMETER

06 = 6 mm

08 = 8 mm

P9 = 9.52 mm, 3/8"

10 = 10 mm

12 = 12 mm

14 = 14 mm (R.EH058C, R.EH059C)

15 = 15 mm (R.EH058C, R.EH059C)

Ⓓ 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

M2 = M23 12 pin plug

M8 = M12 8 pin plug

(only for GA4, BA4, GG4, BG4)

M1 = M12 12 pin plug

(except for GA4, BA4, GG4, BG4)

Ⓢ CUSTOM VERSION

Document release	Date	Description
1.5	6.07.2026	R. EHM58 series order code update (Resolution 36, 72, 81)
1.4	23.01.2026	Environmental specifications
1.3	16.01.2026	Mechanical and electrical specifications update
1.2	16.12.2025	EHM58 series order code update (Revolutions "00")
1.1	11.12.2025	EHM58 series order code update (Protection)
1.0	1.12.2025	First issue