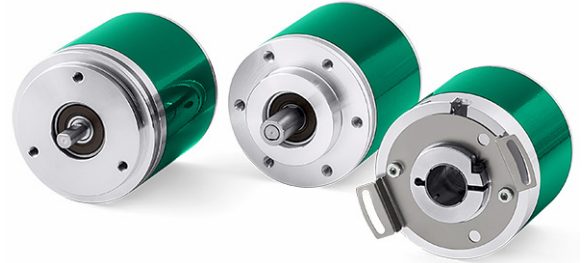


- Absolute multiturn encoder with BiSS-C & SSI interface
- Optical (EHO) or magnetic (EHM) sensing
- Singleturn resolution up to 24 bits (16777216 cpr)
- Multiturn with Energy Harvesting technology
- Solid and hollow shaft version
- High degree of protection, IP67
- Cable output, M12 or M23 connections



EH058 • 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:	-40°C +100°C (-40°F +212°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
Shaft loading (axial, radial):	20 N max.
Shaft rotational speed:	6000 rpm
Starting torque (at 20°C):	0,1 Ncm
Bearings life:	10 <sup>9</sup> rev. min.
Electrical connections:	M12, M23 plug or cable output 1 m (3.3 ft)
Weight:	~ 100 g (3,5 oz)
Option:	• additional cable

### ELECTRICAL SPECIFICATIONS

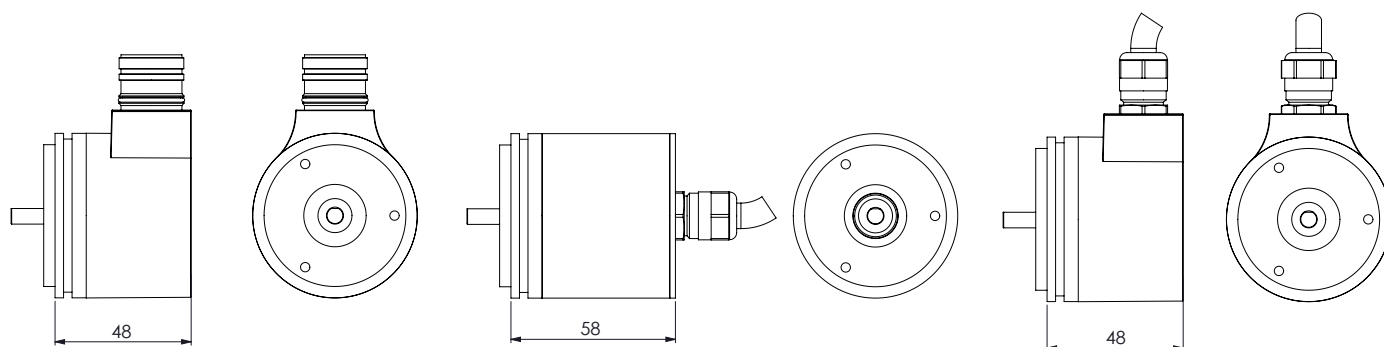
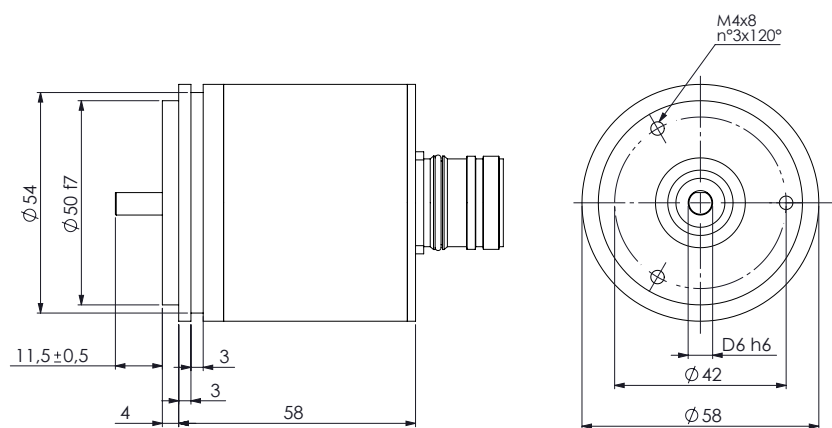
Resolution:	singleturn up to 24 bit (16777216 cpr) multiturn up to 16 bit (65536 turns) <i>others on request</i>
Accuracy:	EHM58 ± 0,09°; EH058 ± 0,01°
Output circuits:	SSI (RS422), clock rate < 4 MHz BiSS-C, clock rate < 10 MHz AB Push-Pull/Line Driver 1024 PPR
Output code:	Gray, Binary
Power supply:	+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

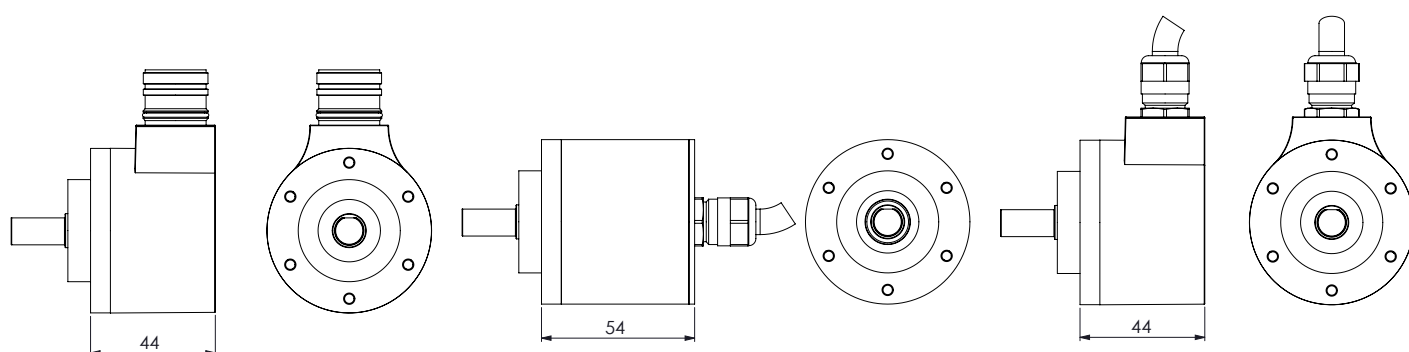
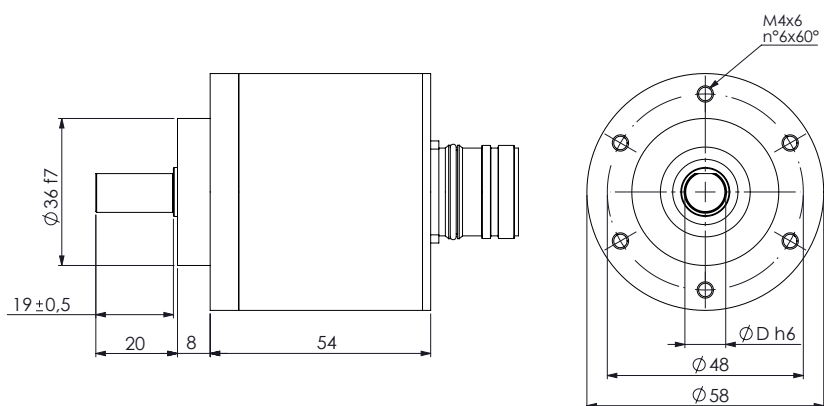
Flange:	anticorodal, UNI EN AW-6082
Housing:	anticorodal, UNI EN AW-6082 or zamac die cast
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305

### ACCESSORIES

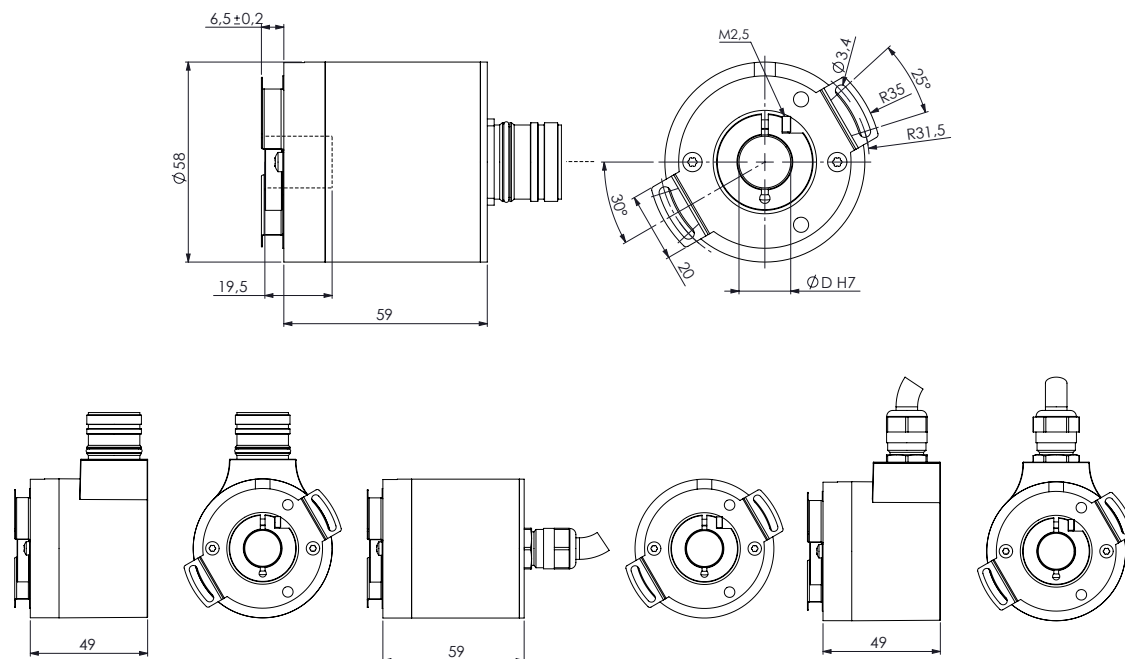
PAN/PGF:	flexible couplings
BR1:	reducing sleeves
LKM-386:	fixing clamps
KIT xx60:	fixing plate (ESC60/EMC60 compatible)
EM12F8:	M12 8 pin mating connector
EC-M12F8-LK-M8-L050:	cordset with 5 m cable
EC-M12F8-LK-M8-L100:	cordset with 10 m cable
EC-M12F8-LK-M8-L150:	cordset with 15 m cable
EC-M12F8-LK-M8-L200:	cordset with 20 m cable
EPFL121H:	M23 12 pin mating connector
EC-CR12F-S28-T12-L100:	cordset with 10 m cable
EC-CR12F-S28-T12-L200:	cordset with 20 m cable



EH058 • EHM58



EH058S • EHM58S



EHO59C • EHM59C

Order code - Optical version

EHO58	-	XX-XX	-	XXX	-	XX	-	X	X	-	X	XXXX	/Sxxx
EHO58S		(a)		(b)		(c)		(d)	(e)		(f)	(g)	(h)
EHO59C													

<p><b>(a) RESOLUTION (BIT SINGLETURN-BIT MULTITURN)</b></p> <p>18-00 = 262144 counts/rev. (singleturn)                  20-00 = 1048576 counts/rev. (singleturn)                  24-00 = 16777216 counts/rev. (singleturn)                  17-15 = 131072 counts/rev. x 32768 rev.                  18-14 = 262144 counts/rev. x 16384 rev.                  20-12 = 1048576 counts/rev. x 4096 rev.</p> <p><b>(b) INTERFACE / POWER SUPPLY</b></p> <p>BG4 = SSI, Binary MSB aligned, +5Vdc+30Vdc                  GG4 = SSI, Gray MSB aligned, +5Vdc+30Vdc                  SC4 = BiSS-C, +5Vdc+30Vdc                  G54 = SSI, Gray MSB aligned, 1024 PPR Push-Pull, +5Vdc+30Vdc                  G04 = SSI, Gray MSB aligned, 1024 PPR Line Driver, +5Vdc+30Vdc</p>	<p><b>(c) SHAFT DIAMETER</b></p> <p>06 = 6 mm                  08 = 8 mm                  P9 = 9.52mm / 3/8"                  10 = 10 mm                  12 = 12 mm                  14 = 14 mm (EHO59C)                  15 = 15 mm (EHO59C)</p> <p><b>(d) PROTECTION</b></p> <p>P = IP67, IP65 shaft side</p> <p><b>(e) OPERATING TEMPERATURE RANGE</b></p> <p>K = -40°C +100°C (-40°F +212°F)</p>	<p><b>(f) CONNECTION POSITION</b></p> <p>A = axial                  R = radial</p> <p><b>(g) CONNECTION TYPE &amp; CABLE LENGTH</b></p> <p>L010 = cable output 1 m (standard)                  Lxx0 = cable output x m (max. length 10 m)                  L100 = cable output 10 m                  M2 = M23 12 pin plug                  M8 = M12 8 pin plug</p> <p><b>(h) CUSTOM VERSION</b></p>
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Order code - Magnetic version

EHM58	-	XX-XX	-	XXX	-	XX	-	X	X	-	X	XXXX	/Sxxx
EHM58S		(a)		(b)		(c)		(d)	(e)		(f)	(g)	(h)
EHM59C													

<p><b>(a) RESOLUTION (BIT SINGLETURN-BIT MULTITURN)</b></p> <p>13-00 = 8192 counts/rev. (singleturn)                  18-00 = 262144 counts/rev. (singleturn)                  10-14 = 1024 counts/rev. x 16384 rev.                  12-13 = 4096 counts/rev. x 8192 rev.                  13-16 = 8192 counts/rev. x 65536 rev.</p> <p><b>(b) INTERFACE / POWER SUPPLY</b></p> <p>BG4 = SSI, Binary MSB aligned, +5Vdc+30Vdc                  GG4 = SSI, Gray MSB aligned, + 5Vdc+30Vdc                  SC4 = BiSS-C, +5Vdc+30Vdc</p>	<p><b>(c) SHAFT DIAMETER</b></p> <p>06 = 6 mm                  08 = 8 mm                  P9 = 9.52mm / 3/8"                  10 = 10 mm                  12 = 12 mm                  14 = 14 mm (EHO59C)                  15 = 15 mm (EHO59C)</p> <p><b>(d) PROTECTION</b></p> <p>P = IP67, IP65 shaft side</p> <p><b>(e) OPERATING TEMPERATURE RANGE</b></p> <p>K = -40°C +100°C (-40°F +212°F)</p>	<p><b>(f) CONNECTION POSITION</b></p> <p>A = axial                  R = radial</p> <p><b>(g) CONNECTION TYPE &amp; CABLE LENGTH</b></p> <p>L010 = cable output 1 m (standard)                  Lxx0 = cable output x m (max. length 10 m)                  L100 = cable output 10 m                  M2 = M23 12 pin plug                  M8 = M12 8 pin plug</p> <p><b>(h) CUSTOM VERSION</b></p>
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Document release	Date	Description
1.0	July 2024	First issue