

- Miniature optical multiturn encoder with SSI and BiSS interfaces
- 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 or M12 connections



EH036 • EHM36

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)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 6 mm
Hollow shaft diameter:	Ø 6 mm
Shaft loading (axial, radial):	20 N max.
Shaft rotational speed:	6000 rpm
Starting torque (at 20°C):	0,1 Ncm
Bearings life:	10 ⁹ rev. min.
Electrical connections:	M12 inline plug or cable output 1 m (3.3 ft)
Weight:	~ 100 g (3,5 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

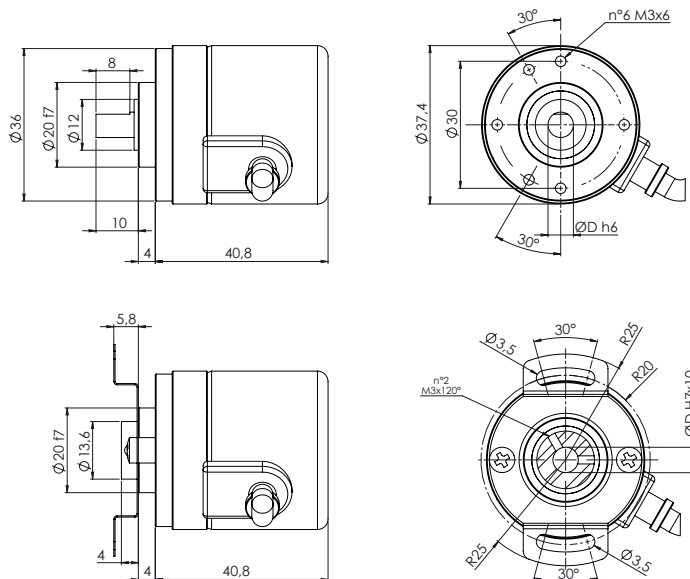
Resolution:	singleturn 16777216 cpr multiturn: 1048576 cpr x 65536 rev., 8192 cpr x 65536 turns
Accuracy:	EHM36 ± 0,09°; EH036 ± 0,01°
Output circuits:	SSI (RS422), clock rate < 4 MHz BiSS-C, clock rate < 10 MHz
Output code:	Gray, Binary
Counting frequency:	> 100 kHz
Power supply:	+5Vdc +30Vdc
Power 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:	anticorrosive, UNI EN AW-6082
Housing:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305

ACCESSORIES

PAN:	flexible couplings
EM12F8:	M12 8 pin mating connector
EC-M12F8-LK-M8-050:	cordset with 5 m cable
EC-M12F8-LK-M8-100:	cordset with 10 m cable



EHO36/EHO36C • EHM36/EHM36C

Order code - Optical version

EHO36 EHO36C	-	XX-XX (a)	-	XXX (b)	-	XX (c)	-	X (d)	X (e)	-	X (f)	XXXX (g)	/Sxxx (h)
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<p>(a) RESOLUTION (BIT SINGLETURN-BIT MULTITURN) 24-00 = 16777216 counts/rev. (singleturn) 18-00 = 262144 counts/rev. (singleturn) 20-12 = 1048576 counts/rev. x 4096 rev. 20-16 = 1048576 counts/rev. x 65536 rev.</p> <p>(b) INTERFACE / POWER SUPPLY BG4 = SSI, Binary MSB aligned, +5Vdc+30Vdc GG4 = SSI, Gray MSB aligned, + 5Vdc+30Vdc SC4 = BiSS-C, +5Vdc+30Vdc</p>	<p>(c) SHAFT DIAMETER Ø6 = 6 mm</p> <p>(d) PROTECTION P = IP67, IP65 shaft side</p> <p>(e) OPERATING TEMPERATURE RANGE T = -25°C +85°C (-13°F +185°F) standard K = -40°C +100°C (-40°F +212°F)</p>	<p>(f) CONNECTION POSITION A = axial R = radial</p> <p>(g) CONNECTION TYPE & CABLE LENGTH L010 = cable output 1 m (standard) Lxx0 = cable output x m (max. length 10 m) L100 = cable output 10 m M005 = 0,5 m cable + M12 8 pin inline plug M020 = 2 m cable + M12 8 pin inline plug</p>
<p>(h) CUSTOM VERSION</p>		

Order code - Magnetic version

EHM36 EHM36C	-	XX-XX (a)	-	XXX (b)	-	XX (c)	-	X (d)	X (e)	-	X (f)	XXXX (g)	/Sxxx (h)
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<p>(a) RESOLUTION (BIT SINGLETURN-BIT MULTITURN) 18-00 = 262144 counts/rev. (singleturn) 13-00 = 8192 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) INTERFACE / POWER SUPPLY BG4 = SSI, Binary MSB aligned, +5Vdc+30Vdc GG4 = SSI, Gray MSB aligned, + 5Vdc+30Vdc SC4 = BiSS-C, +5Vdc+30Vdc</p>	<p>(c) SHAFT DIAMETER Ø6 = 6 mm</p> <p>(d) PROTECTION P = IP67, IP65 shaft side</p> <p>(e) OPERATING TEMPERATURE RANGE T = -25°C +85°C (-13°F +185°F) standard K = -40°C +100°C (-40°F +212°F)</p>	<p>(f) CONNECTION POSITION A = axial R = radial</p> <p>(g) CONNECTION TYPE & CABLE LENGTH L010 = cable output 1 m (standard) Lxx0 = cable output x m (max. length 10 m) L100 = cable output 10 m M005 = 0,5 m cable + M12 8 pin inline plug M020 = 2 m cable + M12 8 pin inline plug</p>
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Document release	Date	Description
1.0	July 2023	First issue