

- Ethernet fieldbus encoder
- General purpose magnetic multiturn with 13x14 bit
- Precise optical version singleturn 18 bit, multiturn 16x14 bit
- Axial connector output
- Solid & hollow shaft versions



EX058 • EXM58

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:	IP65
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 Ø15mm to:	Ø 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	40 N max.
Shaft rotational speed:	6000 rpm max.
Bearings life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Weight:	~ 350 g (12,3 oz)

ELECTRICAL SPECIFICATIONS

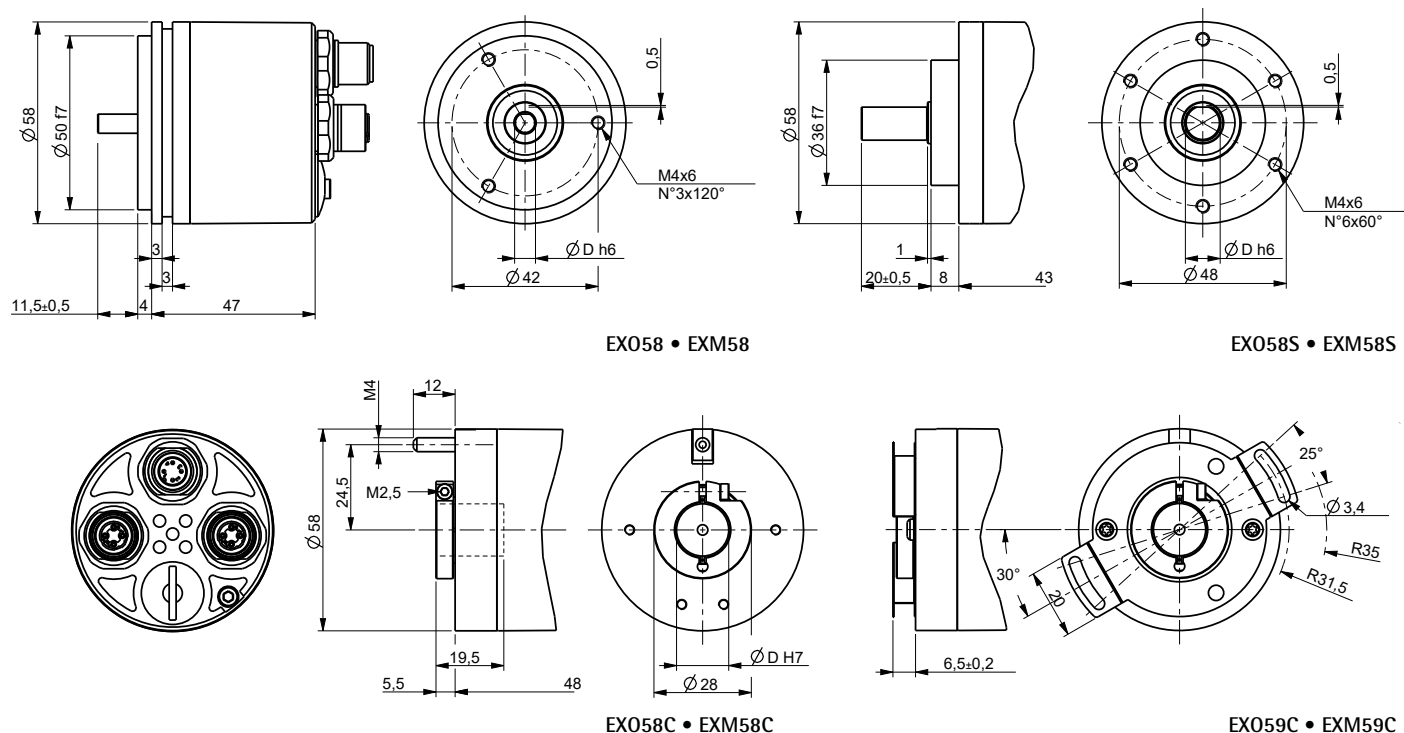
Resolution:	EXM58: 8192 x 16384; 262144 x 4096 EX058: 262144 x 1; 65536 x 16384
Accuracy:	EXM58: ± 0,09°, EX058: ± 0,01°
Power supply:	+5Vdc +30Vdc
Power consumption:	2 W
Interface & specification:	EtherCAT, CoE (CANopen over EtherCAT) Freerun, Sync-mode, Distributed clock Ethernet Powerlink V2.0, Profile 1.2.0, CIA DS406 Sync-mode, Segment SDO transfer, Multiplexing Ethernet/IP Vol. 2 Ed. 1.31, CIP Spec. Vol. 1 Ed. 3.3, Encoder profile 22h Sync-mode, Ring redundancy, Segment SDO transfer, Multiplexing Profinet IO RT1, RT3 (Isochronous) Ethernet Modbus TCP/IP Polled mode (master-slave) CC-Link IE Field Basic
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4

MATERIALS

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

ACCESSORIES

PAN/PGF:	flexible couplings
BR1:	reducing sleeves
LKM-386:	fixing clamps
EC-M12ME-EC-GN-050:	M12 bus in/out cordset 5 m
EC-M12ME-EC-GN-100:	M12 bus in/out cordset 10 m
EXC-M12ME-EC-GN-050-RJ:	M12 + RJ bus in/out cordset 5 m
EXC-M12ME-EC-GN-100-RJ:	M12 + RJ bus in/out cordset 10 m
EC-M12PP-LK-PBS-050:	M12 Pwr cordset 5 m
EC-M12PP-LK-PBS-100:	M12 Pwr cordset 10 m
E-M12FC:	M12 connector (power supply)
E-M12MEC:	M12 connector (bus IN/OUT)
EC-M12ME90-EC-GN-050:	Ethernet M12 radial cordset with 5 m cable
EC-M12ME90-EC-GN-100:	Ethernet M12 radial cordset with 10 m cable
EXC-M12ME90-EC-GN-050-RJ:	Cordset M12 radial plug with 5 m cable + RJ conn.
EXC-M12ME90-EC-GN-100-RJ:	Cordset M12 radial plug with 10 m cable + RJ conn.
EC-M12PP90-LK-PBS-050:	Pwr supply cordset M12 radial plug 5 m cable
EC-M12PP90-LK-PBS-100:	Pwr supply cordset M12 radial plug 10 m cable
EXC-M12ME90-EC-GN-100-M-12ME90-EC:	Cordset M12 radial 5 m cable + M12 radial plug
EXC-M12ME90-EC-GN-200-M-12ME90-EC:	Cordset M12 radial 10 m cable + M12 radial plug



Order code EXO

EXO58 EXO58S EXO58C EXO59C	XX-XX ①	-	XXX ②	-	XX ③	-	X ④	X ⑤	-	X ⑥	/Sxxx ⑦
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① RESOLUTION
(BIT SINGLETURN-BIT MULTITURN)

18-00 = 18 bit (262144 cpr x 1 turn)

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

② INTERFACE / POWER SUPPLY

EC4 = EtherCAT, +5Vdc +30Vdc

PL4 = Powerlink, +5Vdc +30Vdc

PT4 = Profinet IO, +5Vdc +30Vdc

EP4 = Ethernet/IP, +5Vdc +30Vdc

MT4 = Modbus TCP/IP, +5Vdc +30Vdc

CC4 = CC-Link IE Field basic, +5Vdc +30Vdc

③ SHAFT DIAMETER

06 = 6 mm

08 = 8 mm

P9 = 9.52 mm, 3/8"

10 = 10 mm

12 = 12 mm

14 = 14 mm (EXO58C, EXO59C)

15 = 15 mm (EXO58C, EXO59C)

④ PROTECTION

P = IP65

⑤ OPER. TEMP. RANGE

T = -25°C +85°C (-13°F +185°F)

⑥ CONNECTION POSITION

A = axial

⑦ CUSTOM VERSION

Order code EXM

EXM58 EXM58S EXM58C EXM59C	XX-XX ①	-	XXX ②	-	XX ③	-	X ④	X ⑤	-	X ⑥	/Sxxx ⑦
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① RESOLUTION
(BIT SINGLETURN-BIT MULTITURN)

13-14 = 13 x 14 bit (8192 cpr x 16384 turns)

18-12 = 18 x 12 bit (262144 cpr x 4096 turns)

② INTERFACE / POWER SUPPLY

EC4 = EtherCAT, +5Vdc +30Vdc

PL4 = Powerlink, +5Vdc +30Vdc

PT4 = Profinet IO, +5Vdc +30Vdc

EP4 = Ethernet/IP, +5Vdc +30Vdc

MT4 = Modbus TCP/IP, +5Vdc +30Vdc

CC4 = CC-Link IE Field basic, +5Vdc +30Vdc

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Document release	Date	Description
1.1	August 2023	Accessories
1.0	April 2023	First issue