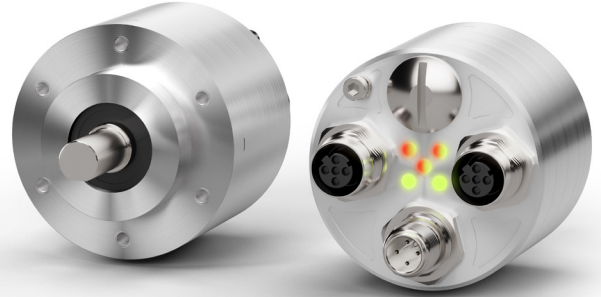


- Ethernet fieldbus encoder
- General purpose magnetic multiturn with 13x14 bit
- Precise optical version singleturn 18 bit, multiturn 16x14 bit
- Axial connector output
- Solid & hollow shaft versions



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

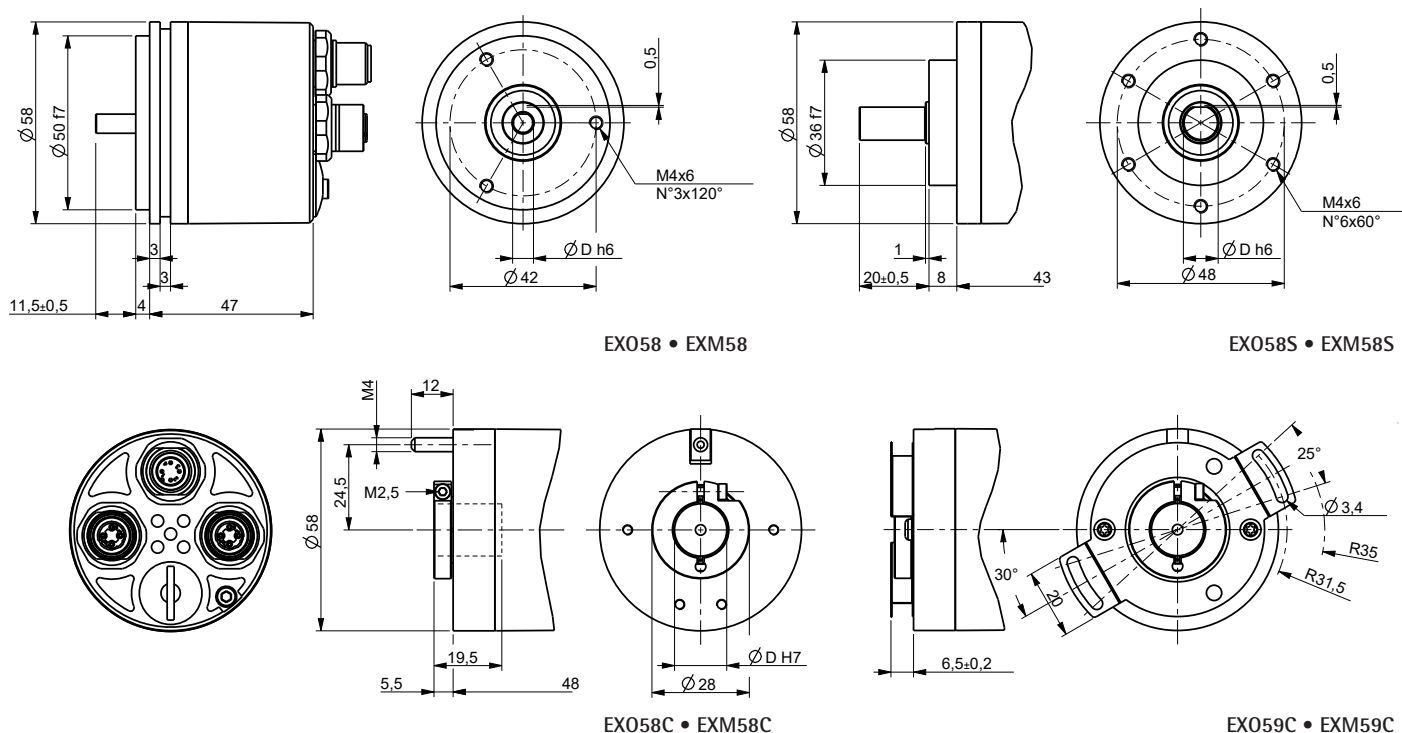
| | |
|----------------------------|---|
| Resolution: | EXM58: 8192 x 16384; 262144 x 4096 EX058: 262144 x 1; 65536 x 16384 |
| Accuracy: | EXM58: ± 0,09°, EX058: ± 0,01° |
| Power supply: | +5Vdc +30Vdc |
| Power consumption: | 2 W max. (@30Vdc) 0,25 A max. (@5Vdc) |
| Interface & specification: | 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: | Ethernet Pwr supply cordset M12 radial plug 5 m cable |
| EC-M12PP90-LK-PBS-100: | Ethernet 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 a | - | XXX b | - | XX c | - | X d | X e | - | X f | /Sxxx g |
|-------------------------------------|------------|---|----------|---|---------|---|--------|--------|---|--------|------------|

| | | | |
|---|---|--|---|
| <p>a) 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)</p> | <p>b) 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</p> | <p>c) 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)</p> | <p>d) PROTECTION P = IP65</p> <p>e) OPER. TEMP. RANGE T = -25°C +85°C (-13°F +185°F)</p> <p>f) CONNECTION POSITION A = axial</p> <p>g) CUSTOM VERSION</p> |
|---|---|--|---|

Order code EXM

| | | | | | | | | | | | |
|-------------------------------------|------------|---|----------|---|---------|---|--------|--------|---|--------|------------|
| EXM58 EXM58S EXM58C EXM59C | XX-XX a | - | XXX b | - | XX c | - | X d | X e | - | X f | /Sxxx g |
|-------------------------------------|------------|---|----------|---|---------|---|--------|--------|---|--------|------------|

| | | | |
|---|---|--|---|
| <p>a) 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)</p> | <p>b) 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</p> | <p>c) SHAFT DIAMETER 06 = 6 mm 08 = 8 mm P9 = 9.52 mm, 3/8" 10 = 10 mm 12 = 12 mm 14 = 14 mm (EXM58C, EXM59C) 15 = 15 mm (EXM58C, EXM59C)</p> | <p>d) PROTECTION P = IP65</p> <p>e) OPER. TEMP. RANGE T = -25°C +85°C (-13°F +185°F)</p> <p>f) CONNECTION POSITION A = axial</p> <p>g) CUSTOM VERSION</p> |
|---|---|--|---|

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