Position and proximity sensors

Absolute Magnetic Rotary Encoder, Ø58 mm, EtherCAT

Model DW-ENC

Ø58 mm magnetic absolute rotary encoder, single-turn up to 16-bit and multi-turn up to 14-bit, with an EtherCAT interface (CANopen over EtherCAT), solid or blind hollow shaft, 10–30 V DC supply and three M12 connectors.



Resolution
16-bit single-turn, 14-bit multi-turn

Electrical interface
EtherCAT

Protection
IP65 or IP66 (IP67 optional)

Features

- Magnetic absolute sensing, single-turn or multi-turn
- EtherCAT interface, CoE profile (DS-301 and DS-406), 100 Mbit/s
- Single-turn resolution up to 16-bit, multi-turn up to 14-bit
- Solid shaft with clamping or synchro flange, or blind hollow shaft
- Aluminium housing, stainless steel housing optional
- Reverse polarity, short-circuit, lightning and ESD protection
- Explosion-proof version available on request

Applications

Industrial automation, Machinery, Material handling, Process equipment, Energy systems, Position and speed feedback in motion control

Specifications

Performance

Type	Magnetic absolute encoder, single-turn or multi-turn
Single-turn resolution	12-bit (4096), 13-bit (8192) or 16-bit (65536)
Multi-turn resolution	12-bit (4096 turns) standard, 14-bit (16384 turns) max.

Output code	Binary
Functions	Programmable resolution, preset and counting direction
Diagnostics	Opto-ASIC, memory, LED

Output	
Electrical interface	EtherCAT
Network protocol	CoE (CANopen over EtherCAT, DS-301 + DS-406)
Communication speed	10/100 Mbit/s
Interface cycle time	≥62.5 µs

Electrical	
Supply voltage	10–30 V DC
Power consumption	≤2.5 W
Start time	< 1 s
Protection	Reverse polarity, short-circuit, lightning and ESD
Electrical connection	3 × M12 connector, radial or axial exit

Mechanical	
Housing diameter	Ø58 mm
Shaft type	Solid shaft (clamping or synchro flange) or blind hollow shaft
Shaft diameter	Ø6, 8, 10, 12, 14 or 15 mm (others to order)
Housing material	Aluminium (stainless steel optional)
Maximum speed	6000 rpm
Shaft load	Radial 200 N, axial 100 N
Starting torque	< 0.05 Nm

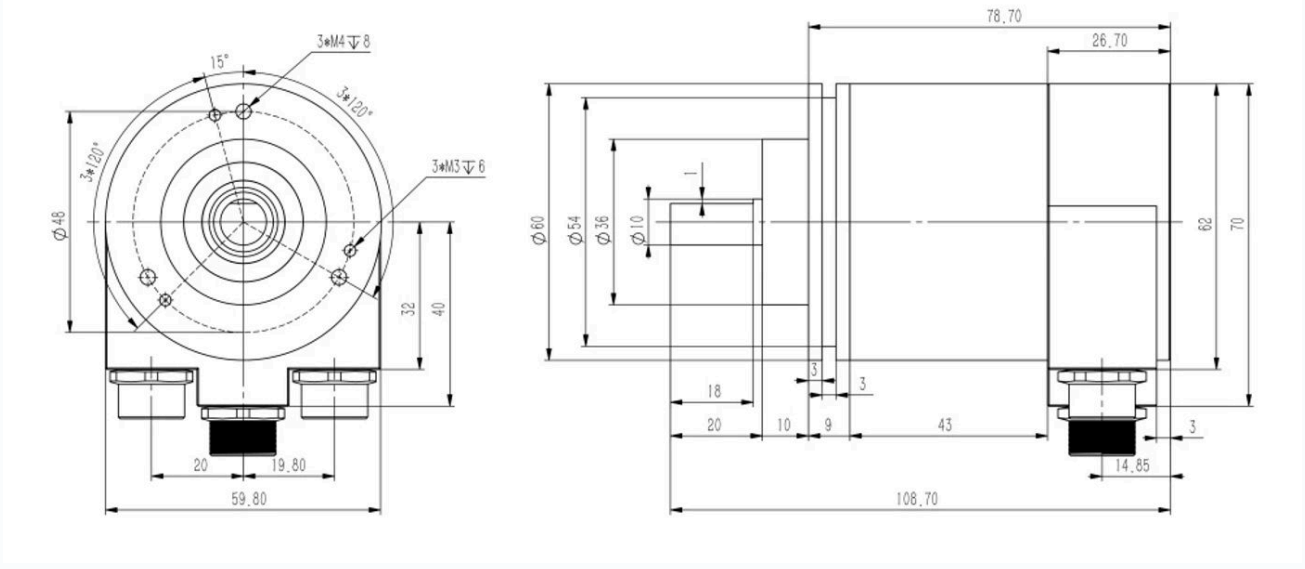
Environmental	
Ingress protection	IP65 or IP66 (IP67 optional)
Operating temperature	−30 to +85 °C (−40 to +85 °C on request)
Storage temperature	−40 to +100 °C
Shock	1000 m/s² (100 g), 6 ms
Vibration	20 g
Hazardous-area version	Explosion-proof version available on request

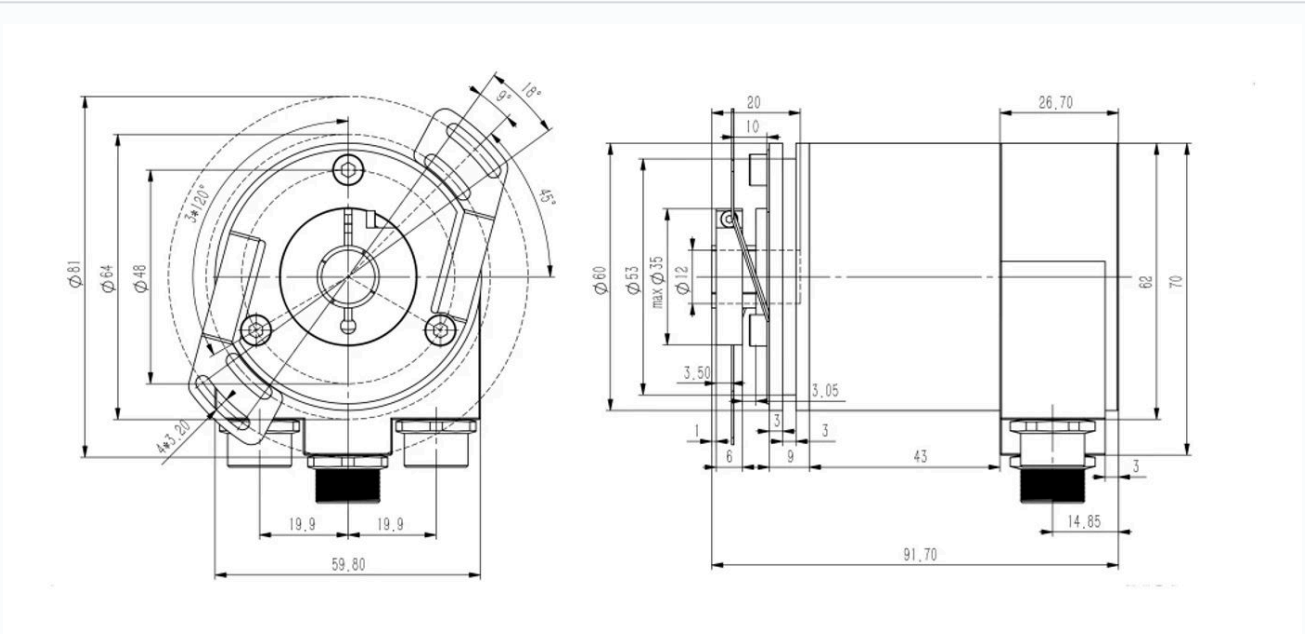
Ordering and support

Pricing, samples, lead time and custom versions: xyx@gzdwin.com, +86 181 0280 8901.

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Dimensions and wiring





Drawings are for reference. Dimensions in millimetres unless stated.