EtherCAT Interface Absolute Multiturn Encoder EAM58

Description

The Ethercat interface absolute multiturn encoder EAM58 series has a good resistance to mechanical damage and can withstand higher axial and radial loads. Various types of flanges can be used to meet different requirements. It complies with industrial Ethercat interface protocol and has a max. resolution of 8192 and a max. revolution of 4096. The resolution and revolution can be programmed according to customer requirements. The high speed communication and anti-interference features ensure steady performance during operation.

Features

- 4 status indicators, for a fast and accurate understanding of the product status
- 3xM12 connectors, implement a fast connection
- Industrial Ethercat interface with an intelligent diagnosis and high speed data transimission function
- Software configures the application of various parameters - convenient maintenance
- Faster interface cycle time

Mechanical parameters

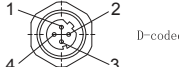|		
Shaft Diameter	φ6g6 mm	-58B
	φ10g6 mm	-58C
Hollow Shaft Diameter	φ8H7/ φ10H7/ φ12H7 MM	-58W
Protection class	IP65	
Speed	6000 r/m	
Axial load capacity	40 N	
Radial load capacity	80 N	
Shock resistance	50G/ 11 ms	
Vibration resistance	10G 10...2000 Hz	
Bearing life	10^9 revolution	
Rotor moment of inertia	approx. 1.8×10^{-6} kgm^2	
Starting torque	0＜.05 Nm	
Body material	AL UNI 9002/5 -(D11S)	
Housing material	AL 6060	
Flange material	AL UNI 9002/5 -(D11S)	
Operating temperature	-40...+80 ℃	
Storage temperature	-45...+85 ℃	
Relative humidity/condensation	90%, Condensation not permitted	
Weight	600 g	

Electrical parameters

Interface	Ethercat
Profile	CoE (CANopen over EtherCAT, DS-301 + DS-406)
Programming Functions	Resolution, preset, counting direction
Supply voltage	10...30 VDC
Current consumption (without load)	200 mA
Power Consumption	≤ 2.5 W
Max. bus rate	100 Mbits/s
Interface cycle time	≥ 62.5 µs
Code	Binary
Max. number of laps	4096 (12 bits)
Max. resolution	8192 (13 bits)

Terminal configuration

Data port 1:

Signal	T×D+	R×D+	T×D-	R×D-
Needle number	1	2	3	4

D-coded

Power port:

Signal	+V	—	-V	—
Needle number	1	—	3	—

Data port 2:

Signal	T×D+	R×D+	T×D-	R×D-
Needle number	1	2	3	4

D-coded

Dimensions (mm)

EAM58B

93,8
10
8
ø58
ø50h7
 øDg6
4
3
3
14,5

ø42
3-M4X5
50

EAM58C

83,8
18
ø58
ø36h7
øDg6
20
10
14,5

ø48
3-M3X5
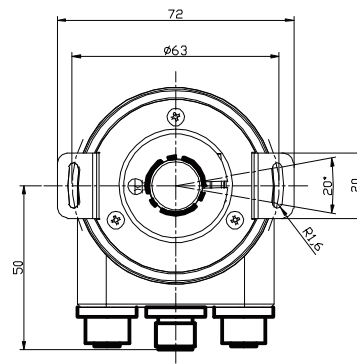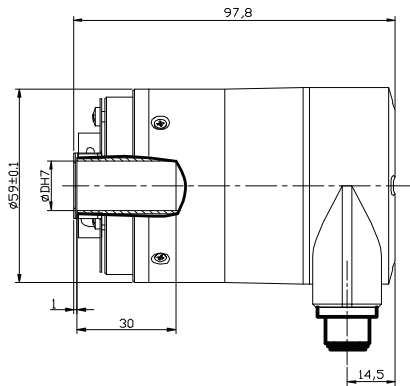50
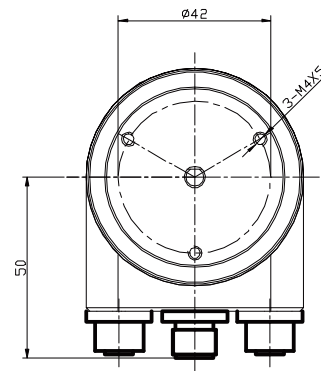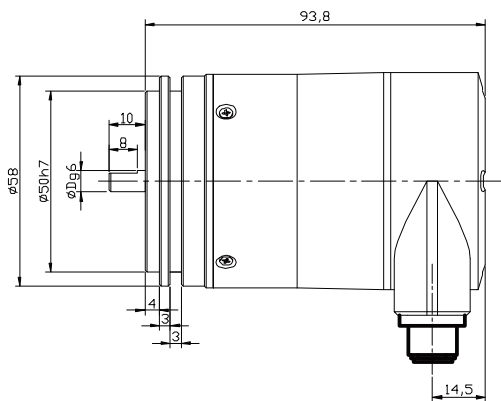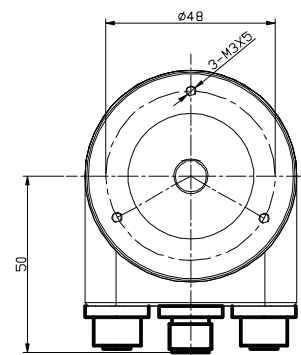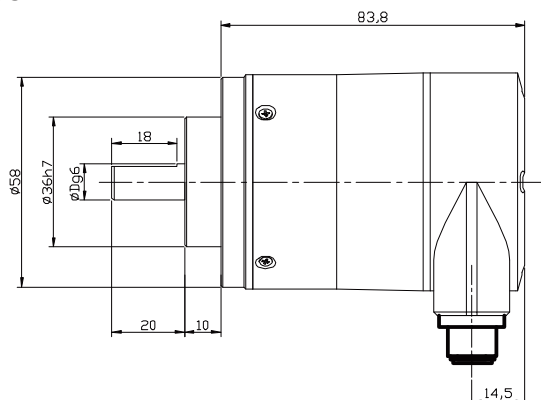
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Dimensions (mm)

EAM58W

Order Code:

EAM 58 C 10 — B F6 X T R — 4096/8192 ECND

ECND:
EtherCAT interface protocol

Resolution
Turns/Singleturn resolution
(see previous pages for reference)
standard 4096/8192 (25 bits)

Outlet directions
R = radial

Type of connection
T = integrated coupler terminal box with 3xM12 plugs

Shaft diameter
6 = φ6g6 mm
58B optional
10 = φ10g6 mm
58C optional
Only for flange type 58W:
8 = φ8H7 mm
10 = φ10H7 mm
12 = φ12H7 mm

Output logic
X = No definition

Output & supply voltage
F6 = Ethercat interface   10...30 VDC

Code type
B = Binary

Matching connectors code:
Power supply connector: TMSP 12F-F4
Bus input connector: TMSP12FD-M4
Bus output connector: TMSP12FD-M4

Flange types
B = synchro flange, shaft lenght 10mm
C = φ36 clamping flange, shaft length 20 mm
W = shaft length, double-wiged spring leaf installation

Housing diameter
58 mm = φ58 flange

Series
EAM = Ethercat interface multiturn