Encoder

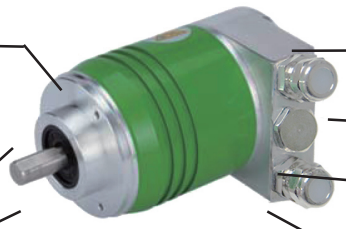
DeviceNet Absolute Multiturn Encoder EAM58

Descriptions

DeviceNet absolute multituren encoder EAM58 series is used in various industrial environment. It delivers excellent performance in withstanding mechaniclal damages. It complies with DeviceNet protocol and has a max. resolution of 8192 and max. revolution up to 4096. Its high speed communication and anti-interference function ensure steady performance during operatuion.

Features

DeviceNet®



Pre-screwed holes, convenient for installation

Water-proof seal, improve protection grade

Optional shaft diameter; better load capacity thanks to stainless steel design

Cable output, faciliate maintemance and installation

Protection grade of IP65

Metal housing for better shock resistance

Comply with DeviceNet Bus protocol

Mechanical Characteristics

Shaft diameter (mm)	Φ6g6	-58B optional
	Φ8g6	-58A/B/C
	Φ9.52(3/8")g6	-58A/B/C
	Φ10g6	-58A/B/C
Hollow shaft diameter (mm)	Φ8H7/Φ9.52H7/Φ10H7	-58W
	Φ12H7/Φ14H7/ Φ15H7	-58W
Protection Grade	IP65	
Speed (r/m)	6000	
Axial load capacity	80N	
Radial load capacity	160N	
Shock resistance	50G/11ms	
Vibration resistance	10G 10~2000Hz	
Bearing life	10^9 revolution	
Moment of inertia	approx. 1.8×10^{-6} kgm^2	
Starting torque	<0.05Nm	
Housing material	AL UNI 9002/5 - (D11S)	
Cover material	AL 6060	
Flange material	AL UNI 9002/5 - (D11S)	
Operating temperature	-40°C~~+80°C	
Storage temperature	-45°C~~+85°C	
Weight	~800g	

4096 (Max. revolution) × 8192 (Max. resolution of single turn)

Electrical Characteristics

Max.revolution	4096 (12 bits)
Max revsolution/revolution	8192 (13 bits)
Supply voltage (Vdc)	10~30 Vdc
Power consumption (no load)	350mA
Bus Max. rate	500K
Linearity	+/- 1/2 LSB
Protocal	DeviceNet Profile for Encoder Release V2.0

Terminal Assignment

V+	Power supply (24VDC)
GND	Power ground (24VDC)
CG	CAN GND
CAN-	CAN Low
CAN+	CAN High
CG	CAN GND
CAN-	CAN Low
CAN+	CAN High

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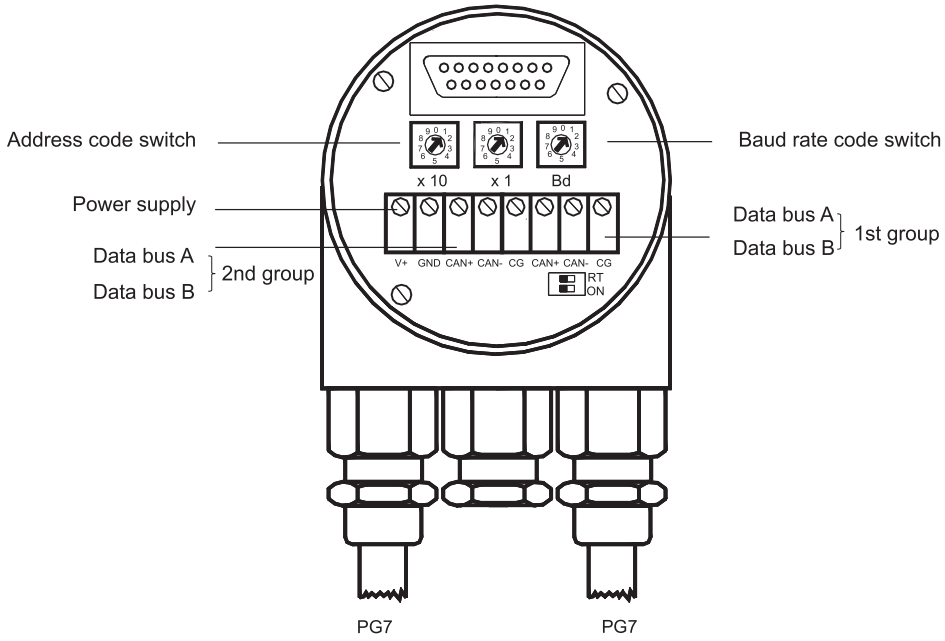
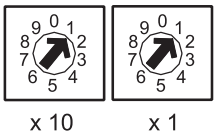


Regulate station address

The station address can be regulated by the swith and be distributed only once among the address 1 to 63.



Regulate terminal resistor

Set the terminal resistor (120 Ω) into the circuit by the DIP switch.

Last station

Station X

Regulate Baud rate

Baud rate k bit/s	Switch
125	0
250	1
500	2

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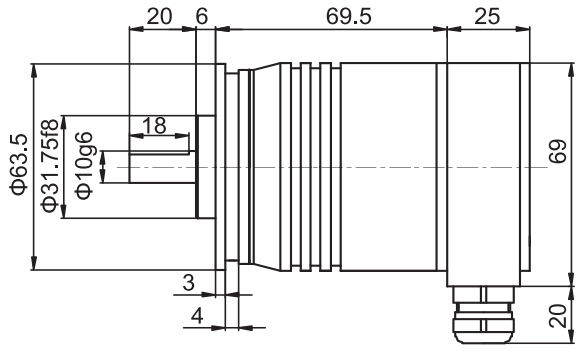
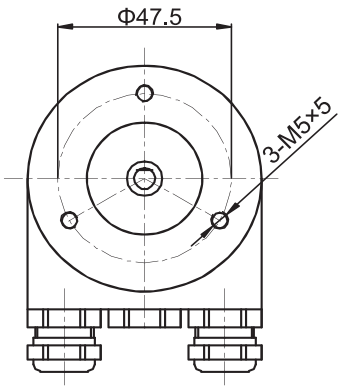
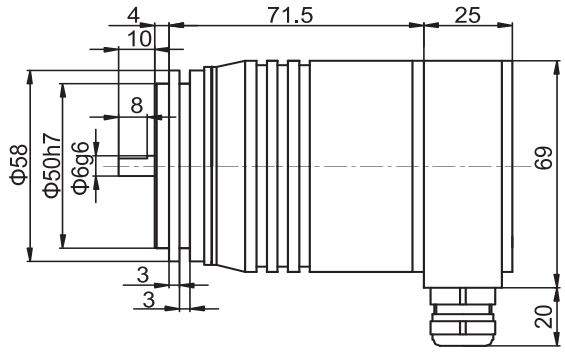
Dimensions (mm)

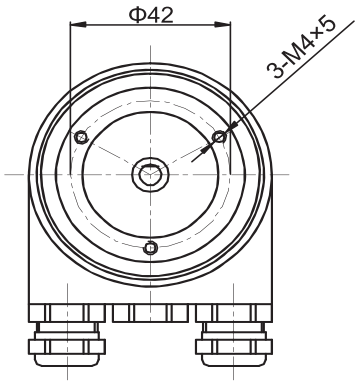
EAM58A





EAM58B





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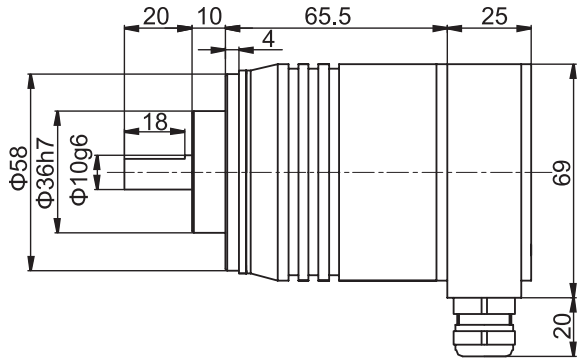
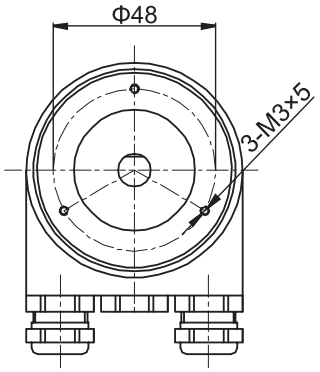
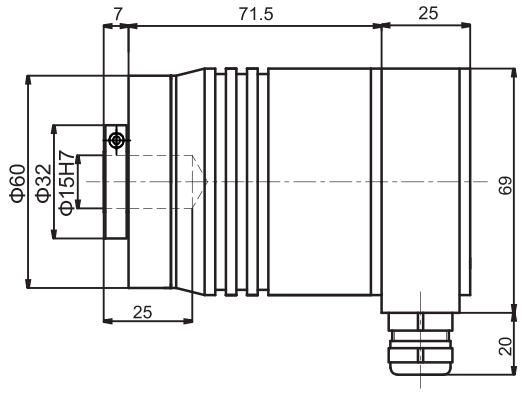
Dimensions (mm)

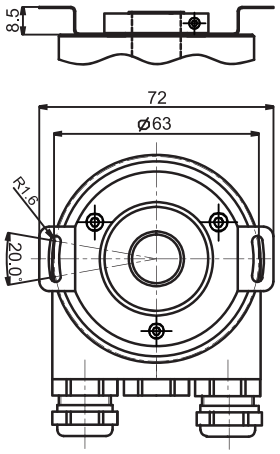
EAM58C





EAM58W





Encoder

DeviceNet Absolute Multiturn Encoder EAM58

Order Code:

EAM 58 C 10 – B F6 X X R – 4096/8192 DN

Series
EAM=absolute multiturn DeviceNET

Housing diameter
58=Φ58

Flange types
A=round flange (58A)
B=synchro flange, shaft length 10mm
C=Φ36 clamping flange,shaft length 20mm
W=blind hollow shaft flange, installed with double-winged fixing sheet

(Hollow) Shaft diameter
6=Φ6g6mm for 58B
8=Φ8g6mm for 58A/B/C
9=Φ9.52g6mm for 58A/B/C
10=Φ10g6mm for 58A/B/C

Only applicable for the axis aperture in flange type 58 W
8 =Φ8H7mm
9 =Φ9.52H7mm
10=Φ10H7mm
12=Φ12H7mm
14=Φ14H7mm
15=Φ15H7mm

Code type
B=Binary

Interface & Supply voltage
F6=Profibus-DP interface 10~30Vdc

Output logic
X=not applicable

Type of connection
X= terminal box 2 PG7 threaded connectors and integrated T-coupler
T= integrated coupler terminal box with 3 M12 plugs

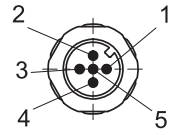
Outlets direction
R=radial

Resolution
Turns/Singleturn resolution (refer to previous pages)
Standard 4096/8192 (25 bits)

DeviceNet Absolute Encoder

M12 terminal assignment :

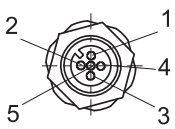
Bus in:



Signal	DRAIN	+ V DC	– V DC	CAN_H	CAN_L
Pin	1	2	3	4	5

For 5-core male plug, the order code of “T” connector is: TMSP12F-F5

Bus out:



Signal	DRAIN	+ V DC	– V DC	CAN_H	CAN_L
Pin	1	2	3	4	5

For 5-core female plug, the order code of “T” connector is: TMSP12F-M5