

Standard Absolute Multiiturn Encoder EAM58



Descriptions

The standard absolute multiiturn encoder EAM58 series offers excellent performance to resist mechanical shocks and is capable of withstanding high axial and radial loads. Various flange types provide great convenience for installation; serial and parallel interfaces are provided for various upper PC; optional turns, resolutions and code formats greatly facilitate customer's application.

Features

- Various types of flanges available
- Pre-screwed holes convenient to installation
- Waterproof seal provides higher IP grade
- Optional shaft diameters facilitate the application
- Metal housing to resist shocks
- Protection grade of IP65
- Optional output connecting for easy use
- Various turns and resolutions

Mechanical Characteristics

Shaft diameter (mm)	Φ6g6/Φ8g6/Φ9g6/Φ10g6
Hollow shaft diameter (mm)	Φ8H7/Φ9.52H7/Φ10H7 -58W
	Φ12H7/Φ14H7/ Φ15H7 -58W
Protection Grade	IP65
Speed (r/m)	6000
Max. load capacity of the shaft	
Axial	80N
Radial	160N
Shock resistance	50G/11ms
Vibration resistance	10G 10~2000Hz
Bearing life	10 ⁹ revolution
Moment of inertia	1.8×10 ⁻⁶ kgm ²
Starting torque	<0.01Nm
Body material	Al-alloy
Housing material	Al-alloy
Operating temperature	-40°C~~+80°C
Storage temperature	-45°C~~+85°C
Weight	approx. 400g

Regular resolution:

Turns available: 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096

Optional resolution per turn: 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192

ST: Reset input, the current position value is saved as the new "0" position.

VR: Up/Down input, once this input is activated, the shaft will turn clockwise, and the output value will decrease gradually.

Latch: Latch input, current output value is freezed.

Electrical Characteristics

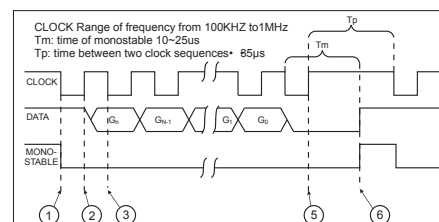
Output circuit	SSI	SSI	Parallel	Parallel
Output and driver	RS422	RS422	Push-Pull	Push-Pull
Resolution	13 Bits	13 Bits	13 Bits	13 Bits
Supply voltage (Vdc)	10-30V	5V	10-30V	5V
Power consumption (no load)	≤200mA	≤200mA	≤200mA	≤200mA
Max. load current	±20mA	±20mA	±20mA	±20mA
Max.output frequency	Max.15kHz	Max.15kHz	Max.40kHz	Max.40kHz
Signal level high	Typ.3.8V	Typ.3.8V	Min.Ub-2.8V	Min.3.4V
Signal level low	Max.0.5V	Max.0.5V	Max.2.0V	Max.0.5V
Rise time Tr	Max 100ns	Max 100ns	Max 1μs	Max 0.2μs
Fall time Tf	Max 100ns	Max 100ns	Max 1μs	Max 0.2μs

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Terminal Assignment

SSI

Signal	0V	+U _b	+C	-C	+D	-D	ST *	V/R *	Latch	Shield
Color Code	WH	BN	GN	YE	GY	PK	BU	RD	BK	⊥
12-pin	1	2	3	4	5	6	7	8	9	PH



Parallel

Signal	0V	+U _b	bit0	bit1	bit2	bit3	bit4	bit5	bit6	bit7	bit8	bit9	bit10	bit11	bit12
Color Code	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	WH/GN	BN/GN	WH/YE	BN/YE	WH/GY
M32-pin	j	h	A	B	C	D	E	F	G	H	J	K	L	M	N
Gray	/	/	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13

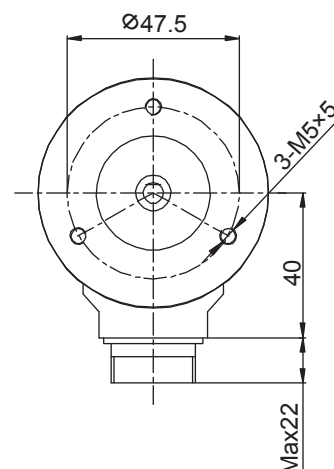
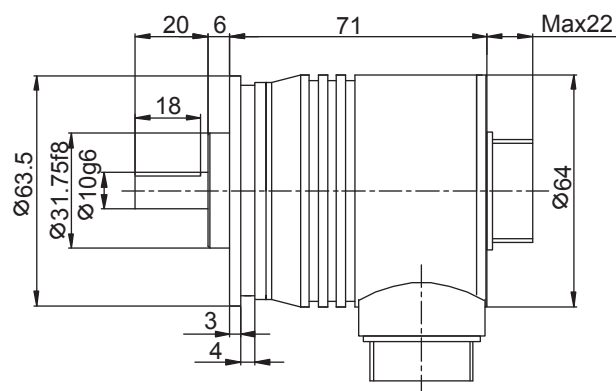
Signal	bit13	bit14	bit15	bit16	bit17	bit18	bit19	bit20	bit21	bit22	bit23	bit24	Latch	V/R *	ST
Color Code	BN/GY	WH/PK	BN/PK	WH/BU	BN/BU	WH/RD	BN/RD	WH/BK	BN/BK	GN/GY	YE/PK	GY/PK	YE/BK	RD/BU	GN/BU
M32-pin	P	R	S	T	U	V	W	X	Y	Z	a	d	e	g	f
Gray	G14	G15	G16	G17	G18	G18	G20	G21	G22	G23	G24	G25	/	/	/

Attention:

Bite definition of the parallel interface for an absolute encoder: bit0=MSB, bit1=MSB-1, bit2=MSB-2,

Dimensions (mm)

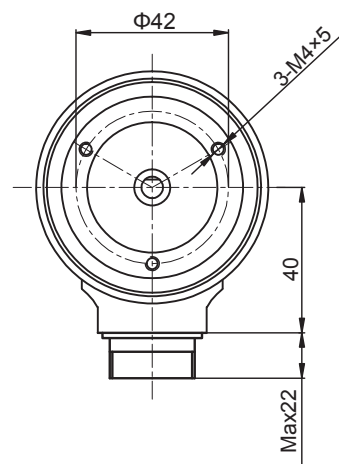
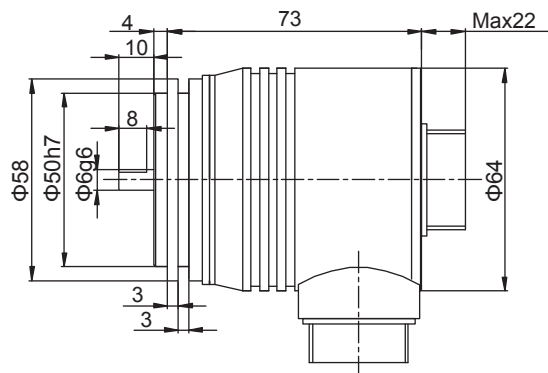
EAM58A



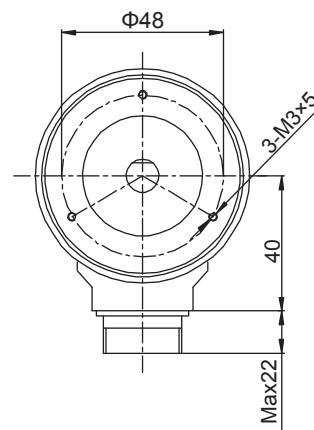
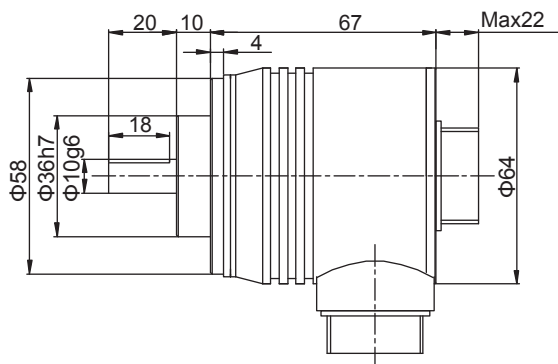
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Dimensions (mm)

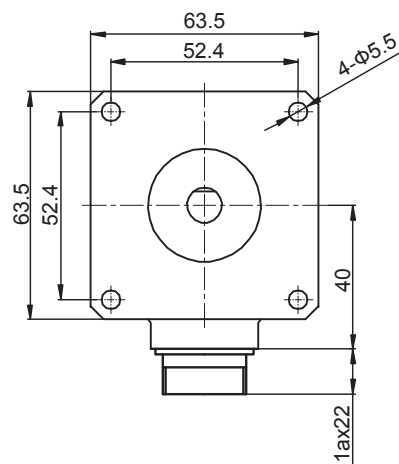
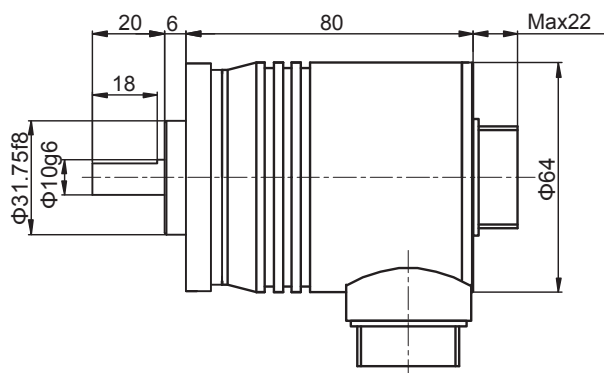
EAM58B



EAM58C



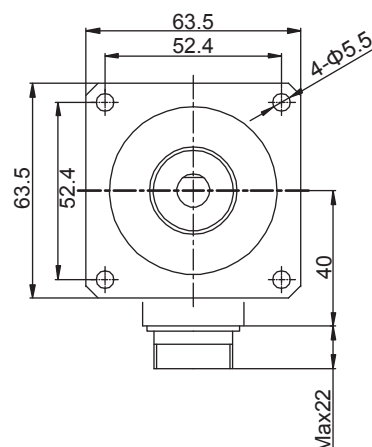
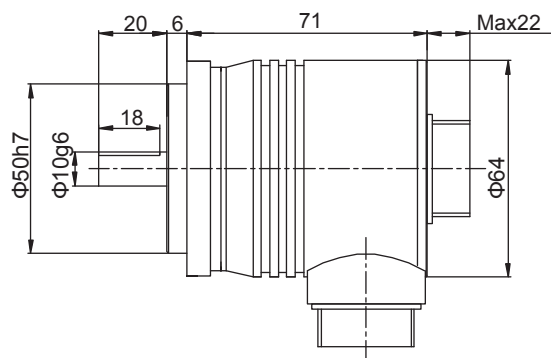
EAMS58D



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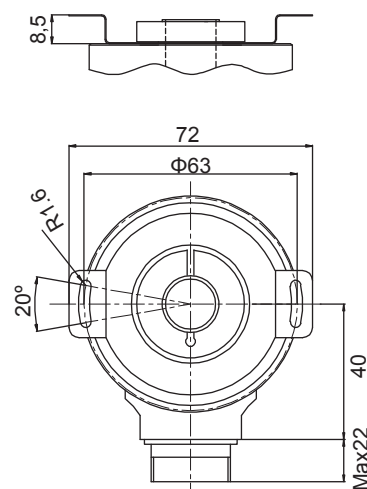
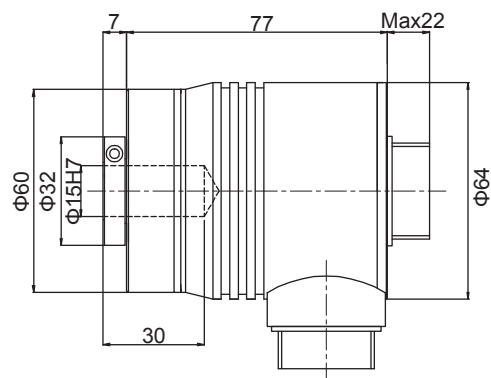
Dimensions (mm)

EAM58E



EAM58W

Matched accessory:
E41350042A/1

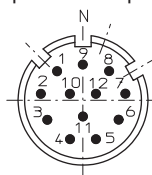


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Order Code :

EAM	58	C	10	-	G	S6	X	PC	R	-	4096/8192	EU	.	XXXX
XXXX=Special code Customized cable length CN00XX= cable length e.g. CN0010=1m CN0020=2m Standard Absolute Multiturn Encoder Resolution Turns/Singleturn resolution (refer to previous pages) Standard 4096/8192 (25 bits)														
Outlets direction R=radial A=axial Type of connection PC=12-core cable (SSI), standard length 1.5m T=M23, 12-pin plug (SSI),without matching connectors PE=32-core cable (parallel), standard length 1.5m MA=MS 19-pin plug ME=MS 32-pin plug Output logic N=negative logic (parallel) P=positive logic (parallel) X=not applicable (SSI) Interface & Supply voltage P6=push-pull with short-circuit protection (standard positive logic) 10~30Vdc P5=push-pull with short-circuit protection (standard positive logic) 5Vdc S6=SSI (synchro serial interface) 10~30Vdc S5=SSI (synchro serial interface) 5Vdc Please contact us for other requirements.														
(Hollow) Shaft diameter 6=Φ6g6mm 58B 8=Φ8g6mm 58A/B/D/E 9=Φ9.52g6mm 58A/D/E 10=Φ10g6mm Only applicable for the axis aperture in flange type 58W 8 =Φ8H7mm 9 =Φ9.52H7mm 10=Φ10H7mm 12=Φ12H7mm 14=Φ14H7mm 15=Φ15H7mm Code type G=Gray B=Binary Flange types A=round flange B=synchro flange, shaft length 10mm C=Φ36 clamping flange,shaft length 20mm D=Φ63.5 square flange, Φ31.75, shaft length20mm E=Φ63.5square flange, Φ50, shaft length20mm W=blind hollow shaft flange, installed with double-winged fixing sheet														
Housing diameter 58=Φ58 Series EAM=standard absolute multiturn														

Topview of 12-pin plug



Connection accessories:
 Connectors matching with connection type "T"
 Order code: TMSP1612F
 Connectors matching with connection type "ME"
 Order code: MS32FV
 Connectors matching with connection type "MA"
 Order code: MS19FV

This sample is only for reference;
 It's subject to the actual products.