

Standard Absolute Singleturn Encoder EAC58



Description

Standard absolute singleturn encoder EAC58 series can be widely used in various industrial environments. The series also has a good performance against mechanical damage and can withstand higher axial and radial load. Various flange types and connections are available. EAC58 series also has the RESET function and resolution up to 8192.

Features

- Pre-screwed holes for easy installation
- Waterproof seal provides greater IP level
- Durable stainless steel shaft
- Metal housing for shock resistance
- Protection class IP65
- Reverse connection protection and short circuit protection

Mechanical parameters

Shaft diameter	Φ6/Φ8/Φ9/Φ10h8 mm
Protection class	IP65
Speed	6000 r/m
Max load capacity of the shaft	
Axial load capacity	60 N
Radial load capacity	120 N
Shock resistance	50G/11 ms
Vibration resistance	10G 10~2000 Hz
Bearing life	10 ⁹ revolution
Rotor moment of inertia	1.8×10 ⁻⁶ kgm ²
Starting torque	<0.01 Nm
Body material	AL-alloy
Housing material	AL-alloy
Operating temperature	-20...+80 °C
Storage temperature	-25...+85 °C
Relative humidity/condensation	90%, Condensation not permitted
Weight	360 g

Resolution

SSI: 1024, 2048, 4096, 8192

Parallel: 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192

Electrical parameters

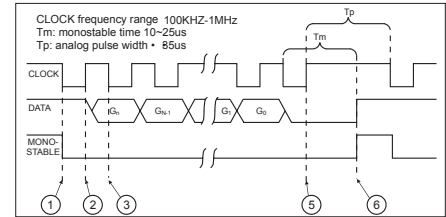
Output circuit	SSI	SSI	Parallel	Parallel
Output driver	RS422	RS422	Push-pull/NPN open collector	
Resolution	13 Bits	13 Bits	13 Bits	13 Bits
Supply voltage	10...30 VDC	5 VDC	10...30 VDC	5 VDC
Power consumption (no load)	≤200 mA	≤200 mA	≤200 mA	≤200 mA
Permissible load (channel)	±20 mA	±20 mA	±20 mA	±20 mA
Pulse frequency	Max. 1 MHz	Max. 1 MHz	Max. 40 kHz	Max. 40 kHz
Signal level high	Typ.3.8 V	Typ.3.8 V	MinUb-2.8 V	Min. 3.4 V
Signal level low	Max. 0.5 V	Max. 0.5 V	Max. 2.0 V	Max. 0.5 V
Rise time Tr	Max. 100 ns	Max. 100 ns	Max. 0.2 μs	Max. 0.2 μs
Fall time Tf	Max. 100 ns	Max. 100 ns	Max. 0.2 μs	Max. 0.2 μs

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Terminal Configuration

SSI Wiring Guide

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



Parallel Wiring Guide

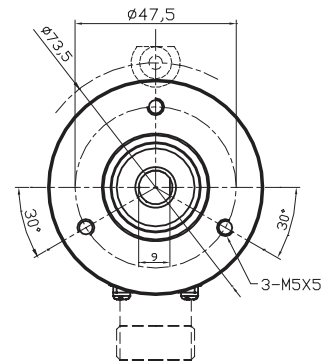
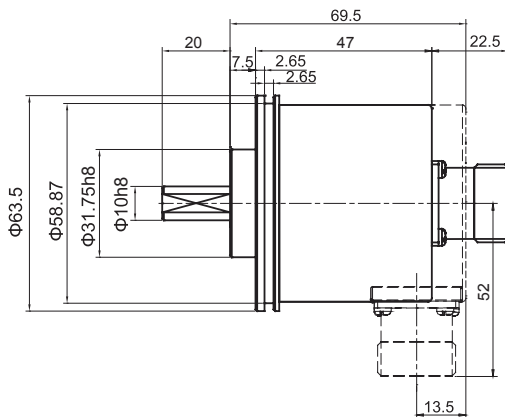
Signal	0V	+U _b	bit0	bit1	bit2	bit3	bit4	bit5	bit6	bit7	bit8	bit9	bit10	bit11	bit12	V/R *	ST *
Color	WH	BN	GN	YE	GY	PK	BU	RD	BK	PL	GY/PK	RD/BU	WH/GN	BN/GN	WH/YE	YE/BN	WH/GY
17-pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Gray	/	/	1	2	3	4	5	6	7	8	9	10	11	12	13	/	/
Binary																	

Attention

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

Dimensions (mm)

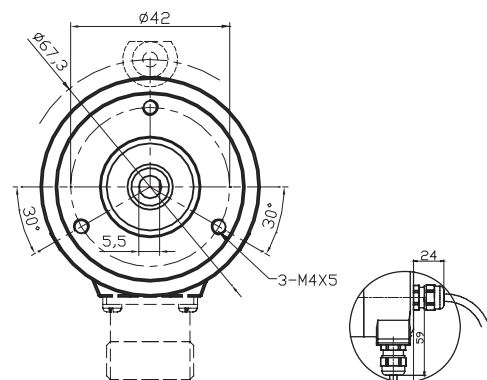
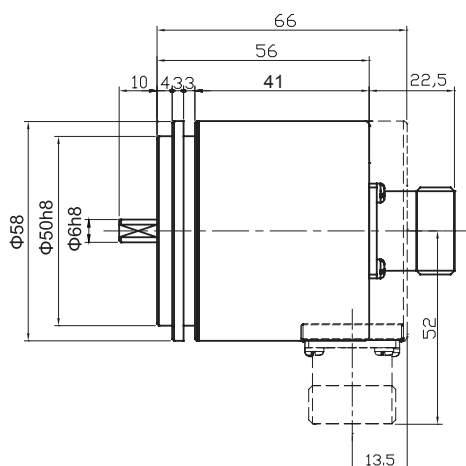
EAC58A



servo-restraint ring:

58PXL (see installation accessories for reference)

EAC58B



Rmin

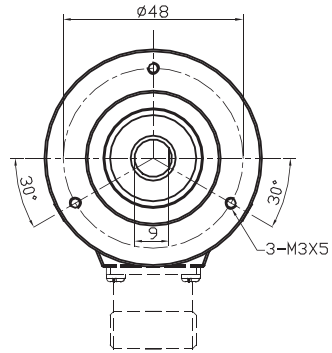
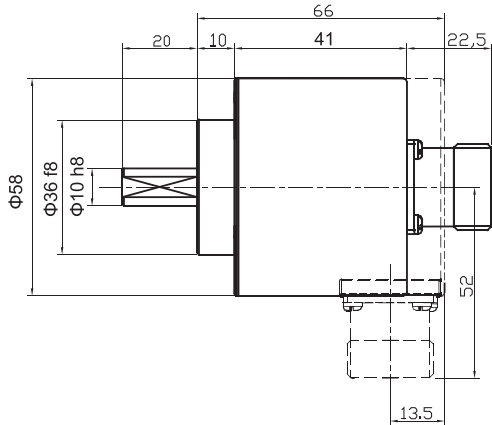
fasten mount: 55mm

Hauling mount: 70mm cable output

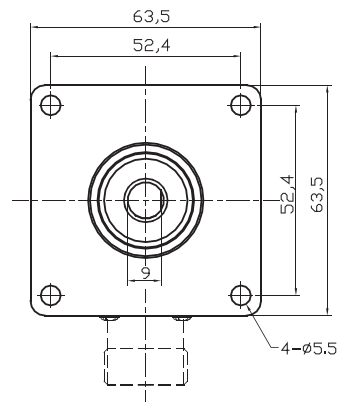
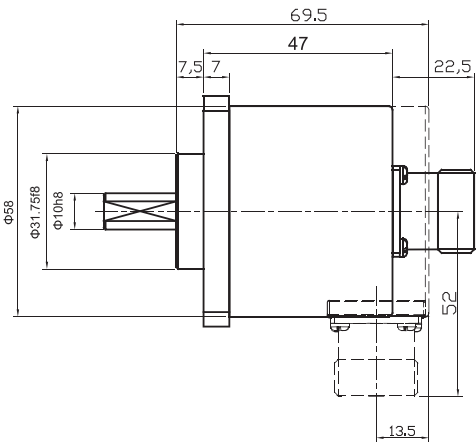
Standard Absolute Singleturn Encoder EAC58

Dimensions (mm)

EAC58C

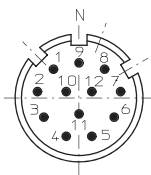


EAC58D

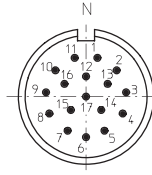


Attention: Do not use excessive force during hardwiring between drive shaft, flange and encoder to prevent shaft damage from overload.

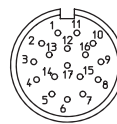
Top view of 12-pin encoder



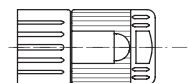
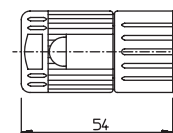
Top view of 17-pin encoder



Hole arrangement for of 17-pin connector



Size



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Order Code :

EAC 58 C 10 - G S6 X PC R - 8192 EU . XXXX

<p>Shaft diameter 6=Φ6 mm (EAC58B) 8=Φ8 mm 9=Φ9.52 mm (3/8") 10=Φ10 mm</p> <p>Flange type A=Φ31.75 clamping flange, shaft length 20 mm B=synchronous flange, shaft length 10 mm C=Φ36 clamping flange, shaft length 20 mm D=63.5 square flange, Φ31.75, shaft length 20 mm</p> <p>Housing dimensions 58= housing dimensions</p> <p>Series EAC=absolute singleturn series</p>	<p>Outlets direction R=radial A=axial</p> <p>Types of connection PC=12-core cable (SSI) standard length 1.5m T=M23, 12-pin connector (SSI) PD=18-core cable (parallel) standard length 1.5m TA=M23, 17-pin connector (parallel)</p> <p>Output logic P=Positive logic (parallel) N=Negative logic (parallel) X= No definition(SSI)</p> <p>Interface & Supply voltage</p> <table border="0"> <tr> <td>P6=Push-Pull (standard positive logic)</td> <td>10...30 VDC</td> </tr> <tr> <td>P5=Push-Pull (standard positive logic)</td> <td>5 VDC</td> </tr> <tr> <td>S6=SSI (synchronous serial interface)</td> <td>10...30 VDC</td> </tr> <tr> <td>S5=SSI (synchronous serial interface)</td> <td>5 VDC</td> </tr> <tr> <td>C6=NPN open collector (standard negative logic)</td> <td>10...30 VDC</td> </tr> </table> <p>Output Code G=Gray Code B=Binary</p>	P6=Push-Pull (standard positive logic)	10...30 VDC	P5=Push-Pull (standard positive logic)	5 VDC	S6=SSI (synchronous serial interface)	10...30 VDC	S5=SSI (synchronous serial interface)	5 VDC	C6=NPN open collector (standard negative logic)	10...30 VDC	<p>XXXX=Special code Customized cable length CN00XX= cable length e.g. CN0010=1m CN0020=2m</p> <p>Standard Absolute Singleturn Encoder</p> <p>Resolution singleturn resolution (see previous pages for reference) Max 8192 (13 bits)-parallel standard 8192 (13 bits)-SSI</p>
P6=Push-Pull (standard positive logic)	10...30 VDC											
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C6=NPN open collector (standard negative logic)	10...30 VDC											

Connector accessories
 Connectors matching with "T" wiring
 Ordering code: TMSP1612F
 Connectors matching with "TA" wiring
 Ordering code: TMSP1617F

This sample is for reference only, please subject to the actual products.
 Please contact ELCO for further specification requests and requirements.