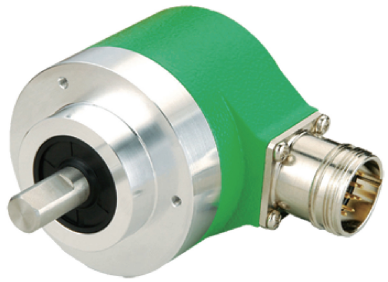
Encoder

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 withstanding 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 resistanceMetal housing for shock resistance
- Protection class IP65
- Reverse connection protection and short circuit protection

Mechanical Characteristics

Shaft diameter（mm)	Φ6/Φ8/Φ9/Φ10h8
Protection acc. to EN 60529	Ip65
Speed (r/m)	6000
Max load capacity of the shaft	
Axial load capacity	60N
Radial load capacity	120N
Shock resistance	50G/11ms
Vibration resistance	10G 10~2000Hz
Bearing life	10^9revolution
Rotor moment of inertia	$1.8\times10^{-6}kgm^2$
Starting torque	<0.01Nm
Body material	AL-alloy
Housing material	AL-alloy
Operating temperature	-20 ℃~~+80 ℃
Storage temperature	-25 ℃~~+85 ℃
Weight	360g

Resolution

SSI：1024， 2048， 4096， 8192

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

Electrical Characteristics

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 (Vdc)	10-30V	5V	10-30V	5V
Power consumption (no load)	≤200mA	≤200mA	≤200mA	≤200mA
Permissible load (channel)	±20mA	±20mA	±20mA	±2zhuo0mA
Pulse frequency	Max1MHz	Max1MHz	Max40kHz	Max40kHz
Signal level high	Typ.3.8V	Typ.3.8V	MinUb-2.8V	Min3.4V
Signal level low	Max0.5V	Max0.5V	Max2.0V	Max0.5V
Rise timeTr	Max 100ns	Max 100ns	Max 0.2μs	Max 0.2μs
Fall timeTf	Max 100ns	Max 100ns	Max 0.2μs	Max 0.2μs

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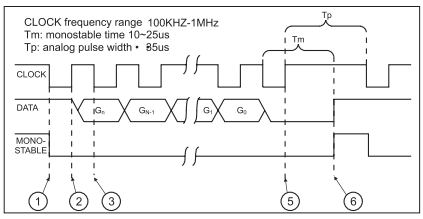
Terminal Configuration

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



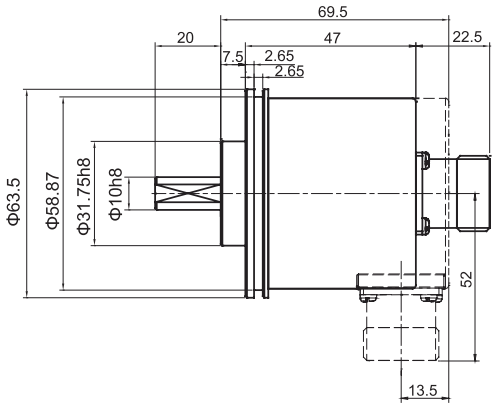
Parallel Wiring Guide

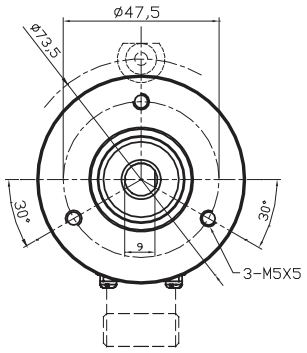
Signal	0V	$+U_b$	bit0	bit1	bit2	bit3	bit4	bit5	bit6	bit7	bit8	bit9	bit10	bit11	bit12	V/R *	ST *
Color	WH	BN	GN	YE	GY	PK	BU	RD	BK	PL	GY/PK	RD/BU	WH/GN	BN/GN	WH/YE	YE/BN	WH/GY
17-pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Gray	/	/	1	2	3	4	5	6	7	8	9	10	11	12	13	/	/
Binary																	

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

Dimensions

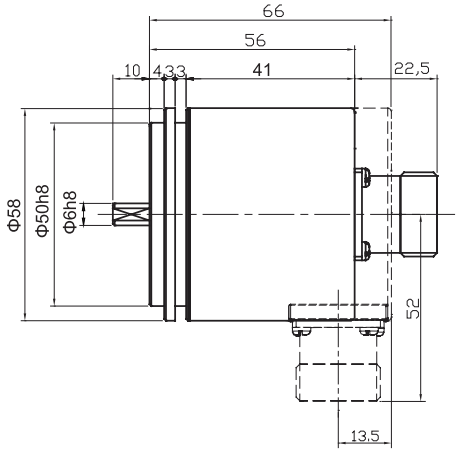
EAC58A

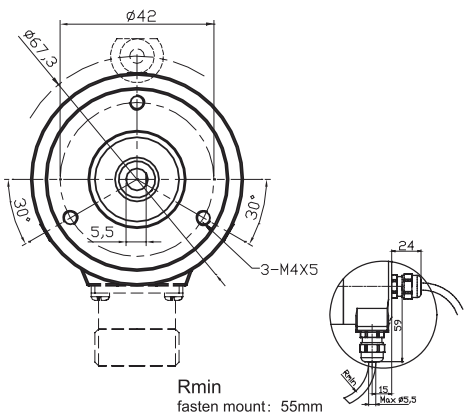




servo-restraint ring:
58PXL (see installation accessories for reference)

EAC58B





Rmin
fasten mount: 55mm
Hauling mount: 70mm cable output

Encoder

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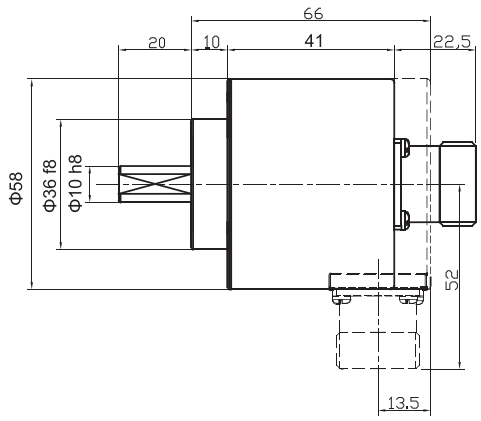
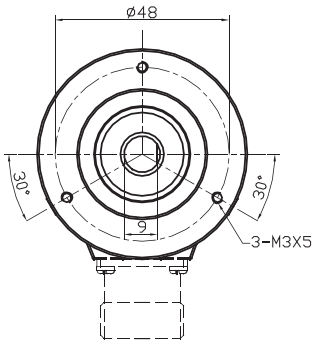
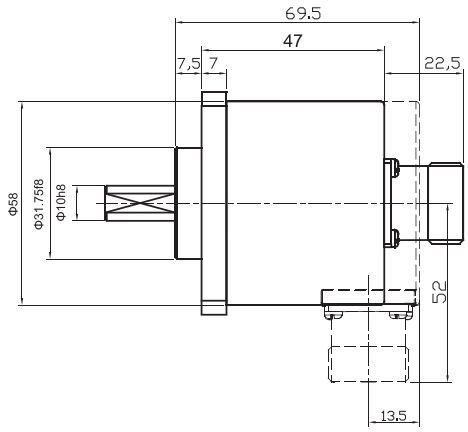
Dimensions

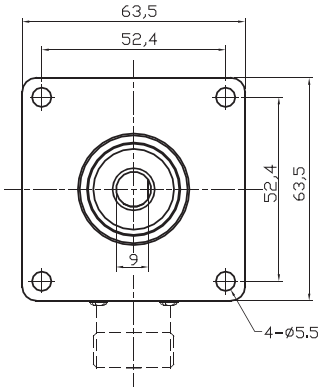
EAC58C





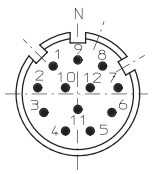
EAC58D



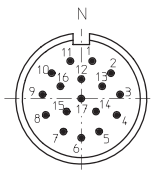


Note:Do not use excessive force during hardwiring between driving shaft,flange,and encoder to prevent shaft damage form overload.

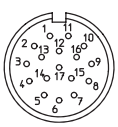
Top view of 12-pin encoder



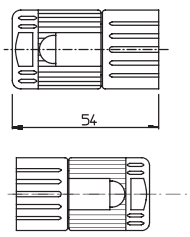
Top view of 17-pin encoder



Hole arrangement for of 17-pin connector



Size



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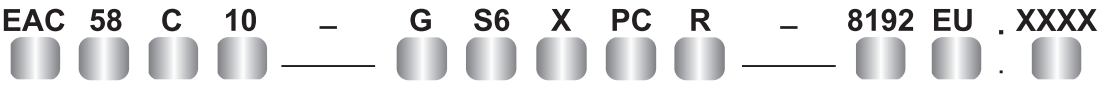
Order Code:



Series
EAC = absolute singleturn series

Housing dimensions
58= housing dimensions

Flange type
A=Φ31.75 clamping flange, shaft length 20mm
B=synchronous flange, shaft length 10mm
C=Φ36 clamping flange, shaft length 20mm
D=63.5 spuare flange, Φ31.75,shaft length 20mm

Shaft diameter
6=Φ6mm(EACS58B)
8=Φ8mm
9=Φ9.52mm (3/8")
10=Φ10mm

Output Code
G=Gray Code
B=Binary

Interface & Supply voltage

P6=push-pill (standard positive logic)	10~30Vdc
P5=push-pill (standard positive logic)	5Vdc
S6=SSI (synchronous serial interface)	10~30Vdc
S5=SSI (synchronous serial interface)	5Vdc
C6=NPN open collector (standard negative logic)	10-30Vdc

Output logic
P=positive logic (parallel)
N=negative logic (parallel)
X= ninsense (SSI)

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)

Resolution
singleturn resolution
(see previous pages for reference)
Max 8192 (13 bits)-parallel
standard 8192 (13 bits)-SSI

Standard Absolute Singleturn Encoder

Outlets direction
R=radial
A=axial

XXXX=Special code
Customized cable length
CN00XX= cable length
e.g. CN0010=1m
CN0020=2m

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.