

Standard Absolute Singleturn Encoder EAC58

Application

Standard absolute singleturn encoder EAC58 series are widely used in various industrial environments, with a good performance against mechanical damage, and withstanding higher axial and radial load. EAC58 series with "RESET" functions, resolution up to 8192.

Characteristics

- Various flanges available
- Water-proof seal
- stainless steel
- Metal housing
- Protection class IP64
- Short-circuit protection
- Reverse connection protection



Mechanical Characteristics

Shaft diameter (mm)	Φ6/Φ8/Φ9/Φ10h8
Protection acc. to EN 60 529	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 ⁹ revolution
Rotor moment of inertia	1.8×10 ⁻⁶ kgm ²
Starting torque	<0.01Nm
Body material	AL-alloy
Housing material	AL-alloy
Operating temperature	-20°C~~+80°C
Storage temperature	-25°C~~+85°C
Weight	360g

Resolution:

SSI resolution: 1024, 2048, 4096, 8192

Parallel resolution: 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/NPNopen collector/PNP/PNP 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	±20mA
Pulse frequency	Max 1MHz	Max 1MHz	Max 40kHz	Max 40kHz
Signal level high	Typ.3.8V	Typ.3.8V	Min 3.4V	Min Ub-2.8V
Signal level low	Max 0.5V	Max 0.5V	Max 0.5V	Max 2.0V
Rise time Tr	Max 100ns	Max 100ns	Max 0.2μs	Max 0.2μs
Fall time Tf	Max 100ns	Max 100ns	Max 0.2μs	Max 0.2μs

Overview

General

Absolute

Easydc
Incremental

Topdic
Incremental

Heavydc
Incremental

Ex-proof

Special
Temperature

Adapter and draw
wire mechanics

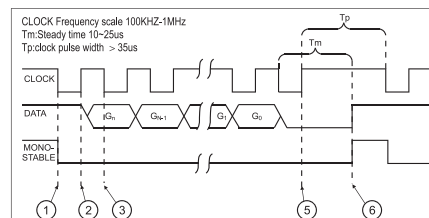
Accessories

Standard Absolute Singleturn Encoder EAC58

Terminal Assignment

SSI

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



Parallel

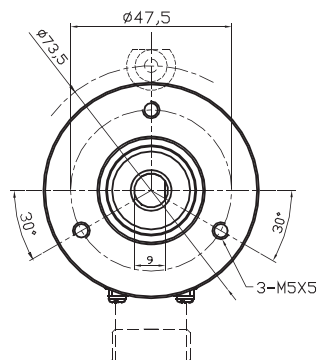
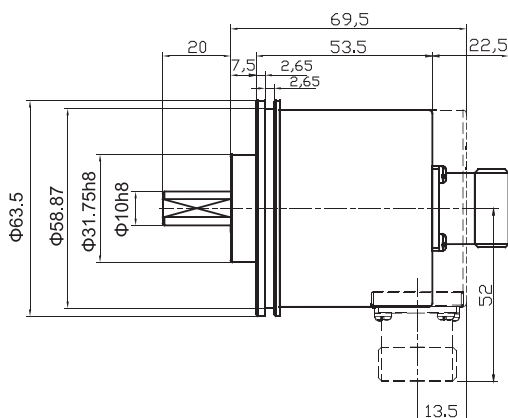
Signal	0V	+U _b	bit0	bit1	bit2	bit3	bit4	bit5	bit6	bit7	bit8	bit9	bit10	bit11	bit12	V/R *	ST *
Color	WH	BN	GN	YE	GY	PK	BU	RD	BL	PL	GY/PK	RD/BU	WH/GN	BN/GN	WH/YE	YE/BN	WH/GY
17pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Gray	/	/	1	2	3	4	5	6	7	8	9	10	11	12	13	/	/
Binary																	

Attention:

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

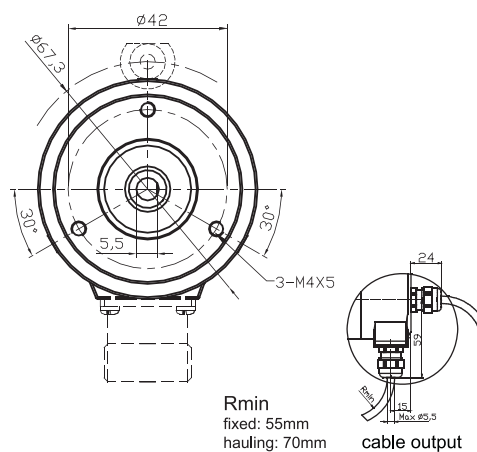
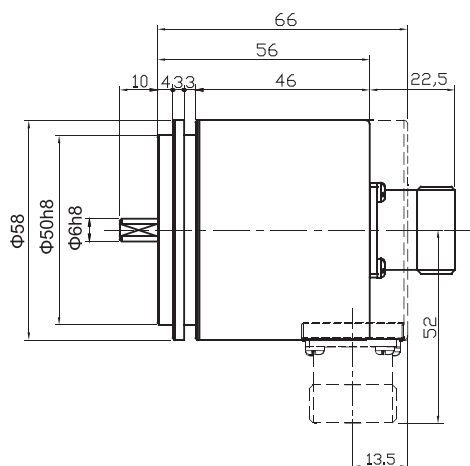
Dimension

EAC58A



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

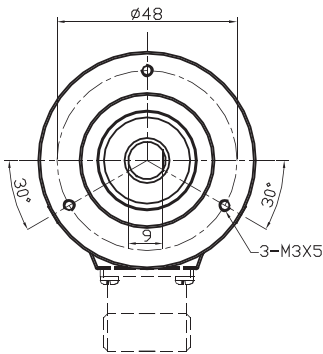
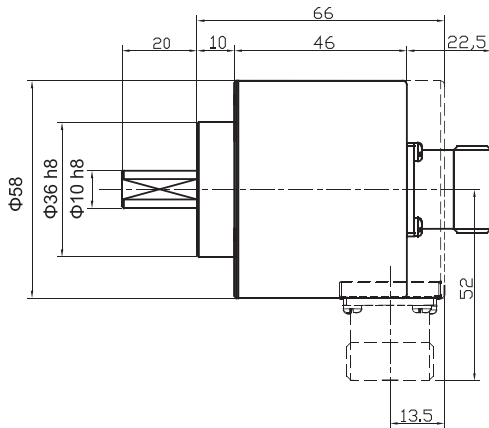
EAC58B



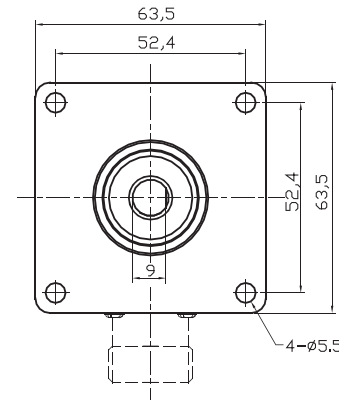
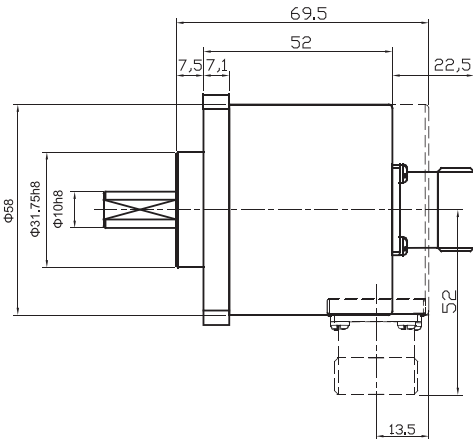
Standard Absolute Singleturn Encoder EAC58

Dimension

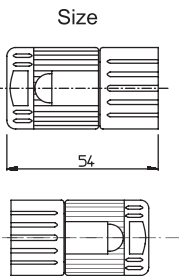
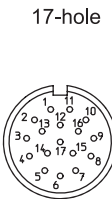
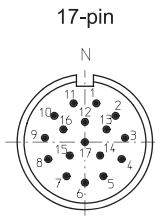
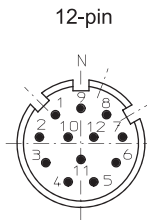
EAC58C



EAC58D



Note: Rigid hardwired mustn't be used between driving shaft, flange and encoder to prevent shaft from overload.



Overview

General

Absolute

Easydic
Incremental

Topdic
Incremental

Heavydic
Incremental

Ex-proof

Special
Temperature

Adapter and draw
wire mechanics

Accessories

Standard Absolute Singleturn Encoder EAC58

Order Code:

EAC	58	C	10	—	G	S6	X	PC	R	—	8192	.XXXX
			Shaft Diameter					Outlets direction		XXXX=Special Code		
			6=Φ6mm (EAC58B) 8=Φ8mm 9=Φ9.52mm (3/8") 10=Φ10mm					R=radial A=axis				
			Flange Type					Type of connection		Resolution		
			A=Φ31.75 clamping flange, shaft length 20mm B=synchronous flange, length 10mm C=Φ36 clamping flange, shaft length 20mm D=63.5 square flange, shaft Φ31.75h7, length 20mm					PC=12cores cable (SSI) standard length 1.5m T=M23 ,12pin connector PD=18cores cable(parallel) standard length 1.5m TA=M23 ,17pin connector(parallel)		Singleturn resolution Max 8192 (13 bits)-parallel standard 8192(13 bits)-ssi		
			Housing Diameter					Output logic				
			58=Housing diameter					N=negative logic (parallel) P=positive logic (parallel) X=nonsense (ssi)				
			Series					Output & Supply voltage				
			EAC = Absolute singleturn encoder					N6=NPN (Standard negative logic) N5=NPN (Standard negative logic) P6=Push-pull (Standard positive logic) P5=Push-pull (Standard positive logic) S6=SSI (synchronous serial interface) S5=SSI (synchronous serial interface) C6=NPN open collector (Standard negative logic) C5=NPN open collector (Standard negative logic)		10~30Vdc 5Vdc 10~30Vdc 5Vdc 10~30Vdc 5Vdc 10~30Vdc 5Vdc		
								Code Type				
								G=Gray B=Binary				

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

This sample is for reference only, take products as the standard.
Please contact ELCO for other function requirements.