

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 higher IP level
- Durable stainless steel shaft
- Metal 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 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: 1024, 2048, 4096, 8192

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

Electrical Characteristics

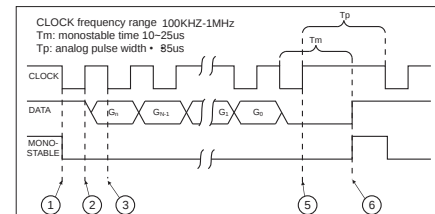
Output circuit	SSI	SSI	Parallel	Parallel
Output driver	RS422	RS422	Push-pull/NPN open collector	
Resolution	13 Bits	13 Bits	13 Bits	13 Bits
Supply voltage (Vdc)	10-30V	5V	10-30V	5V
Power consumption (no load)	≤200mA	≤200mA	≤200mA	≤200mA
Permissible load (channel)	±20mA	±20mA	±20mA	±20mA
Pulse frequency	Max. 1MHz	Max. 1MHz	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 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

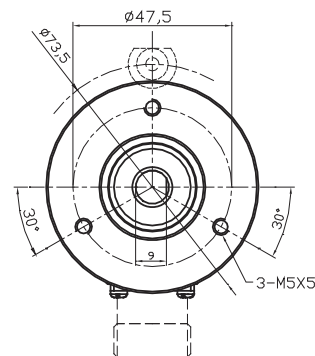
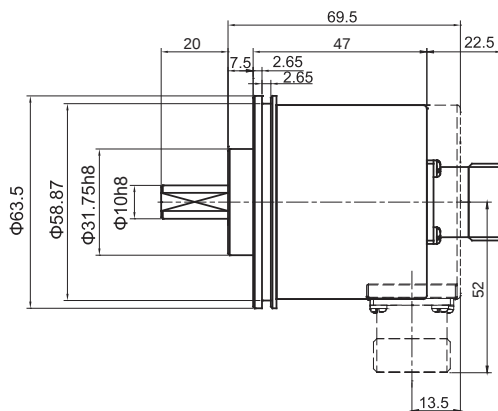
Signal	0V	+U _b	bit0	bit1	bit2	bit3	bit4	bit5	bit6	bit7	bit8	bit9	bit10	bit11	bit12	V/R *	ST *
Color	WH	BN	GN	YE	GY	PK	BU	RD	BK	PL	GY/PK	RD/BU	WH/GN	BN/GN	WH/YE	YE/BN	WH/GY
17-pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Gray	/	/	1	2	3	4	5	6	7	8	9	10	11	12	13	/	/
Binary																	

Attention

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

Dimension (mm)

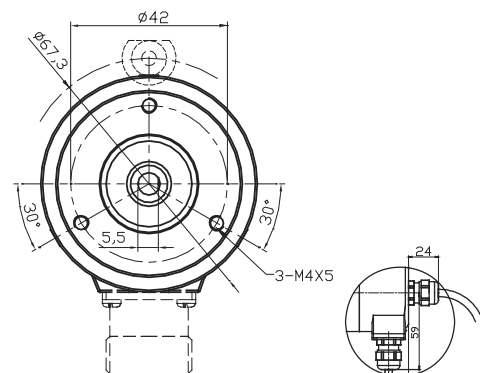
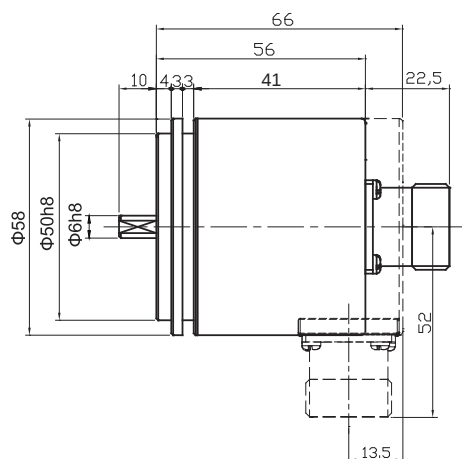
EAC58A



servo-restraint ring:

58PXL (see installation accessories for reference)

EAC58B



Rmin

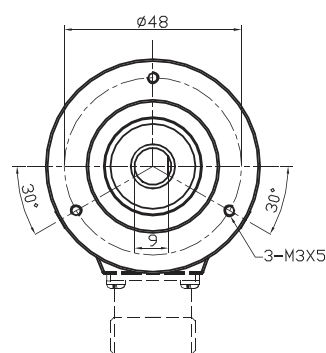
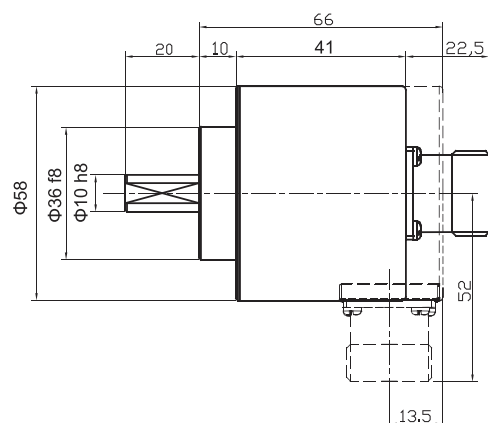
fasten mount: 55mm

Hauling mount: 70mm cable output

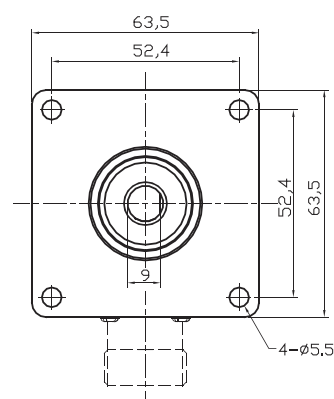
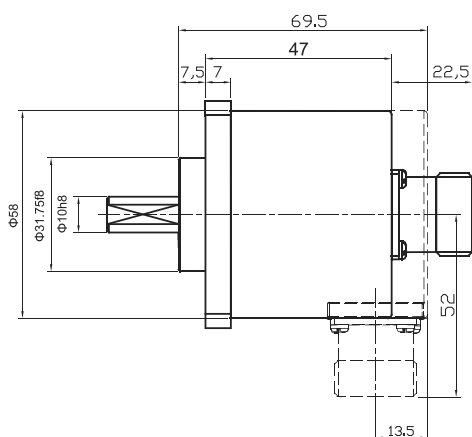
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Dimension (mm)

EAC58C

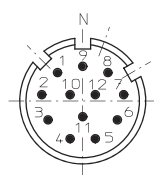


EAC58D

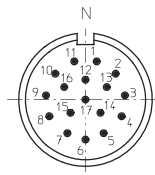


Note: Do not use excessive force during hardwiring between driving shaft, flange, and encoder to prevent shaft damage form overload.

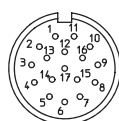
Top view of 12-pin encoder



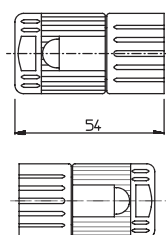
Top view of 17-pin encoder



Hole arrangement for of 17-pin connector



Size



Standard Absolute Singleturn Encoder EAC58

Order Code:

EAC	58	C	10	—	G	S6	X	PC	R	—	8192	EU	. XXXX
				Shaft diameter				Outlet direction		XXXX=Special code			
				6=Φ6mm(EACS58B)				R=radial		Customized cable length			
				8=Φ8mm				A=axial		CN00XX= cable length			
				9=Φ9.52mm (3/8")						e.g. CN0010=1m			
				10=Φ10mm						CN0020=2m			
										Standard absolute singleturn encoder			
				Flange type				Types of connection		Resolution			
				A=Φ31.75 clamping flange, shaft length 20mm				PC=12-core cable (SSI)		singleturn resolution			
				B=synchronous flange, shaft length 10mm				standard length 1.5m		(see previous pages for reference)			
				C=Φ36 clamping flange, shaft length 20mm				T=M23, 12-pin connector (SSI)		Max. 8192 (13 bits)-parallel			
				D=63.5 square flange, Φ31.75,shaft length 20mm				PD=18-core cable (parallel)		standard 8192 (13 bits)-SSI			
								TA=M23, 17-pin connector (parallel)					
								Output logic					
								P=positive logic (parallel)					
								N=negative logic (parallel)					
								X= ninsense (SSI)					
				Housing dimensions				Interface & Supply voltage					
				58mm=housing dimensions				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			
Series													
EAC = absolute singleturn series													