

Standard Hollow Shaft Absolute Singleturn Encoder EAC58P



Description

Standard absolute singleturn encoder EAC58P 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. EAC58P series is also equipped with the RESET function with resolution up to 8192.

Features

- Hollow shaft installation saves space with "C" ring lock
- $\Phi 8/10/12$ hollow shaft for easy applications
- Waterproof seal provides higher IP level
- Metal housing is capable of withstanding higher axial and radial loads
- Protection class IP65
- Output cables or connectors are available for easy maintenance

Mechanical Characteristics

Hollow shaft diameter (mm)	$\Phi 8/\Phi 10/\Phi 12H7$
Protection acc. to EN 60529	IP65
Speed (r/m)	6000
Max load capacity of the shaft	
Axial load capacity	60N
Radial load capacity	1200N
Shock resistance	50G/ 11ms
Vibration resistance	10G 10...2000Hz
Bearing life	10^9 revolution
Rotor moment of inertia	$1.8 \times 10^{-6} \text{ kgm}^2$
Starting torque	$<0.01\text{Nm}$
Body material	AL-alloy
Housing material	AL-alloy
Operating temperature	$-20^\circ\text{C} \dots +80^\circ\text{C}$
Storage temperature	$-25^\circ\text{C} \dots +85^\circ\text{C}$
Weight	360g

Resolution

SSI: 1024, 2048, 4096, 8192

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

Electrical Characteristics

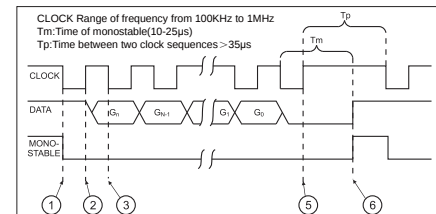
Output circuit	SSI	SSI	Parallel	Parallel
Output driver	RS422	RS422	Push-pull/NPN OC	
Resolution	13 Bits	13 Bits	13 Bits	13 Bits
Supply voltage (Vdc)	10-30V	5V	10-30V	5V
Power consumption (no load)	$\leq 200\text{mA}$	$\leq 200\text{mA}$	$\leq 200\text{mA}$	$\leq 200\text{mA}$
Permissible load (channel)	$\pm 20\text{mA}$	$\pm 20\text{mA}$	$\pm 20\text{mA}$	$\pm 20\text{mA}$
Pulse frequency	Max. 1MHz	Max. 1MHz	Max. 40kHz	Max. 40kHz
Signal level high	Typ. 3.8V	Typ. 3.8V	Typ. Ub-2.8V	Typ. 3.4V
Signal level low	Max. 0.5V	Max. 0.5V	Max. 2.0V	Max. 0.5V
Rise timeTr	Max. 100ns	Max. 100ns	Max. 0.2 μs	Max. 0.2 μs
Fall timeTf	Max. 100ns	Max. 100ns	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*	Shield
Color	WH	BN	GN	YE	GY	PK	BU	RD	⊥
12-pin	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	BK	VT	GY/PK	RD/BU	WH/GN	BN/GN	WH/YE	YE/BN	WH/GY
12-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)

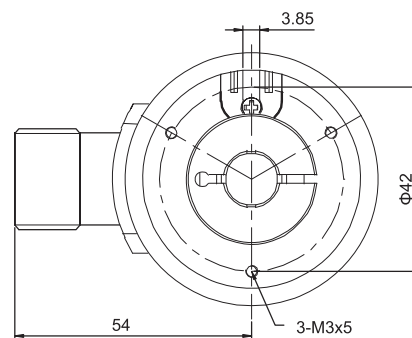
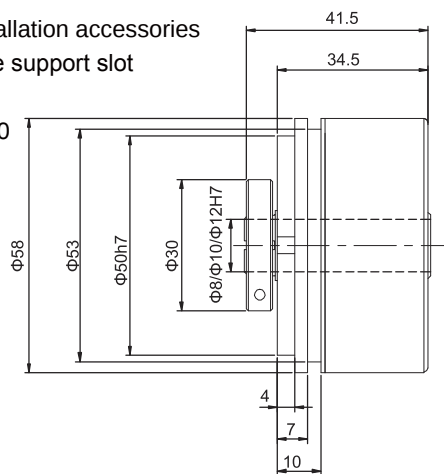
EAC58P (Q)

P without installation accessories

Q short torque support slot

Accessories:

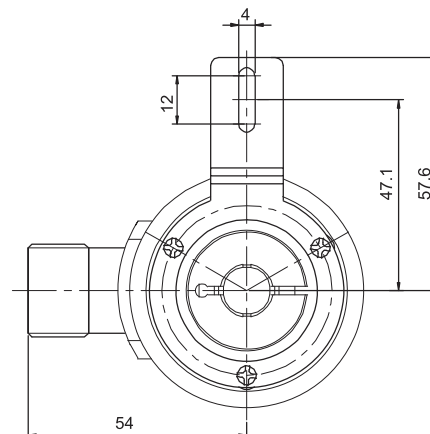
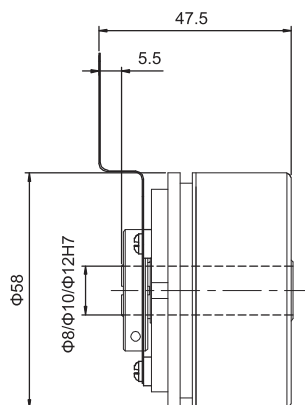
E23230010A/0



EAC58H

Accessories:

E41350050A/0

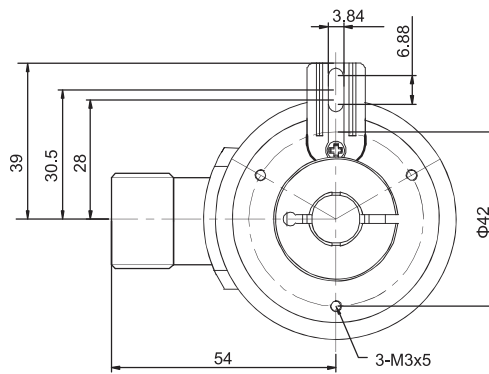
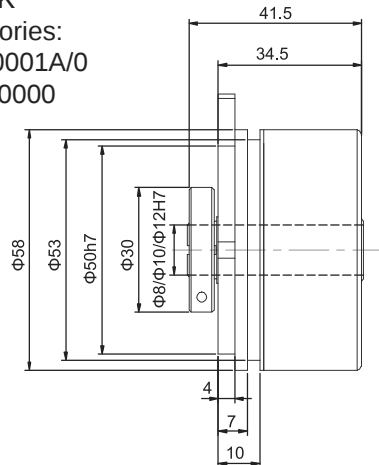


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Mechanical Drawings

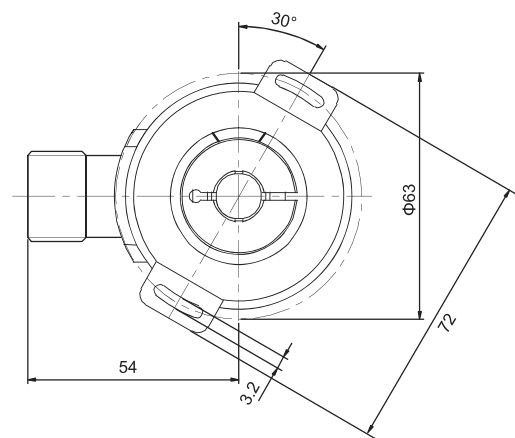
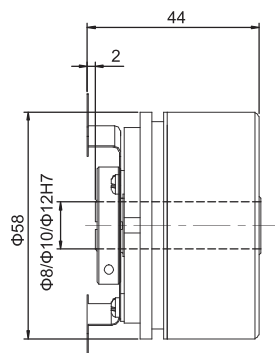
EAC58K

Accessories:
E41220001A/0
E4700 0000



EAC58W

Accessories:
E41350042A/1



Standard Hollow Shaft Absolute Singleturn Encoder EAC58P

Order Code:

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

EAC Series EAC=standard absolute singleturn	58 Housing dimensions 58mm=housing diameter	W Flange type p=without installation accessories H=tether arm Q=short torque support slot K=long torque support slot W=double-winged stator coupling	10 Hollow Shaft diameter 8=Φ8mm 9=Φ9.52mm 10=Φ10mm 12=Φ12mm	-	G Output Code G=Gray Code B=Binary	S6 Interface & Supply voltage S6=SSI (synchronous serial interface) 10...30Vdc S5=SSI (synchronous serial interface) 5Vdc C6=NPN open collector (standard negative logic) 10...30Vdc	X Output logic X=nonsense (SSI)	PC 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)	R Outlet direction R=radial A=axial	-	8192 Resolution 8192=singleturn resolution (see previous pages for reference) Max 8192 (13 bits)-parallel standard 8192 (13 bits)-SSI	EU	. XXXX XXXX=Special code Customized cable length CN00XX=cable length e.g. CN0010=1m CN0020=2m Standard Absolute Singleturn Encoder
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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 product.
Please contact ELCO for further specification requests and requirements.