

EAC58A-EU

ARTICLE PROPERTIES

TYPE	Standard absolute single-turn encoder
SIZE	Ø 58

TECHNICAL DATA

HOLLOW SHAFT DIAMETER	Ø 6h8 mm / Ø 8h8 mm / Ø 9.52 mm / Ø 10h8 mm	STARTING TORQUE	< 0.01 N·m
SPEED	6000 rpm	BODY MATERIAL	Aluminum
BEARING LIFE	10 ⁹ revolution	HOUSING MATERIAL	Aluminum
MOMENT OF INERTIA	1.8 x 10 ⁻⁶ kgm ²	WEIGHT	360 g

ENVIRONMENTAL CONDITIONS

PROTECTION CLASS	IP65	OPERATING TEMPERATURE	-20 ... +80 °C
MAX LOAD CAPACITY OF THE SHAFT	60 N axial, 120 N radial	STORAGE TEMPERATURE	-25 ... +85 °C
SHOCK RESISTANCE (EN 60068-2-27)	50 g, 11 ms	RELATIVE HUMIDITY / CONDENSATION	90%, condensation not permitted
VIBRATION RESISTANCE (EN 60068-2-6)	10 g, 10 ... 2000 Hz		

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 OC	Push-pull / NPN OC
RESOLUTION	13 Bits	13 Bits	13 Bits	13 Bits
SUPPLY VOLTAGE	10 ... 30 V DC	5 V DC	10 ... 30 V DC	5 V DC
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	Typ.Ub-2.8 V	Typ. 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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STANDARDS AND DIRECTIVES

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR EN IEC 61000-6-2
EN IEC 61000-6-4

APPROVALS

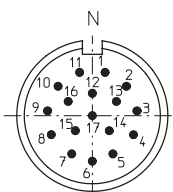


TERMINAL ASSIGNMENT

Terminal	Wire color	Signal	Resolution					
			8 bit (256)	9 bit (512)	10 bit (1024)	11 bit (2048)	12 bit (4096)	13 bit (8192)
1	WH	0 V	0 V	0 V	0 V	0 V	0 V	0 V
2	BN	+Ub	+Ub	+Ub	+Ub	+Ub	+Ub	+Ub
3	GN	bit 1 MSB	B ⁷ / G ⁷	B ⁸ / G ⁸	B ⁹ / G ⁹	B ¹⁰ / G ¹⁰	B ¹¹ / G ¹¹	B ¹² / G ¹²
4	YE	bit 2	B ⁶ / G ⁶	B ⁷ / G ⁷	B ⁸ / G ⁸	B ⁹ / G ⁹	B ¹⁰ / G ¹⁰	B ¹¹ / G ¹¹
5	GY	bit 3	B ⁵ / G ⁵	B ⁶ / G ⁶	B ⁷ / G ⁷	B ⁸ / G ⁸	B ⁹ / G ⁹	B ¹⁰ / G ¹⁰
6	PK	bit 4	B ⁴ / G ⁴	B ⁵ / G ⁵	B ⁶ / G ⁶	B ⁷ / G ⁷	B ⁸ / G ⁸	B ⁹ / G ⁹
7	BU	bit 5	B ³ / G ³	B ⁴ / G ⁴	B ⁵ / G ⁵	B ⁶ / G ⁶	B ⁷ / G ⁷	B ⁸ / G ⁸
8	RD	bit 6	B ² / G ²	B ³ / G ³	B ⁴ / G ⁴	B ⁵ / G ⁵	B ⁶ / G ⁶	B ⁷ / G ⁷
9	BK	bit 7	B ¹ / G ¹	B ² / G ²	B ³ / G ³	B ⁴ / G ⁴	B ⁵ / G ⁵	B ⁶ / G ⁶
10	VT	bit 8	B ⁰ / G ⁰	B ¹ / G ¹	B ² / G ²	B ³ / G ³	B ⁴ / G ⁴	B ⁵ / G ⁵
11	GY / PK	bit 9	NC	B ⁰ / G ⁰	B ¹ / G ¹	B ² / G ²	B ³ / G ³	B ⁴ / G ⁴
12	RD / BU	bit 10	NC	NC	B ⁰ / G ⁰	B ¹ / G ¹	B ² / G ²	B ³ / G ³
13	WH / GN	bit 11	NC	NC	NC	B ⁰ / G ⁰	B ¹ / G ¹	B ² / G ²
14	BN / GN	bit 12	NC	NC	NC	NC	B ⁰ / G ⁰	B ¹ / G ¹
15	WH / YE	bit 13 LSB	NC	NC	NC	NC	NC	B ⁰ / G ⁰
16	YE / BN	V/R	V/R	V/R	V/R	V/R	V/R	V/R
17	WH / GY	ST	ST	ST	ST	ST	ST	ST

Attention: Bite definition of parallel interface for an absolute encoder is: bit 1 = MSB, bit 2 = MSB-1, bit 3 = MSB-2, ...
 ST: SET input, the high level will last 2 s and this position will be stored as new zero position.
 V/R: Up / down input, in the normally open state, the encoder's counting function can be switched.
 Observe the shaft end, in the normally closed state, the encoder's counting will increase when the shaft turning clockwise, in the normally open state, the encoder's counting will decrease when the shaft turning clockwise.

M23 17-pin



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TERMINAL ASSIGNMENT (SSI)

Signal	0 V	+U _B	+C	-C	+D	-D	ST *	V/R*	LH	Shield
Color	WH	BN	GN	YE	GY	PK	BU	RD	BK	\perp
M23 12-pin	1	2	3	4	5	6	7	8	9	PH

C: Colck Signal

D: Data Signal

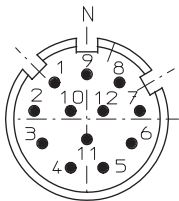
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LH: LATCH input, freeze current value.

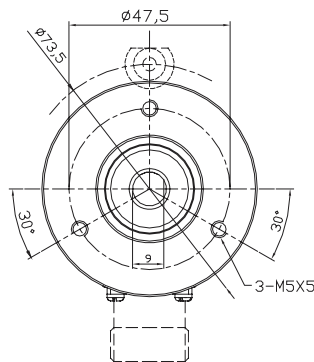
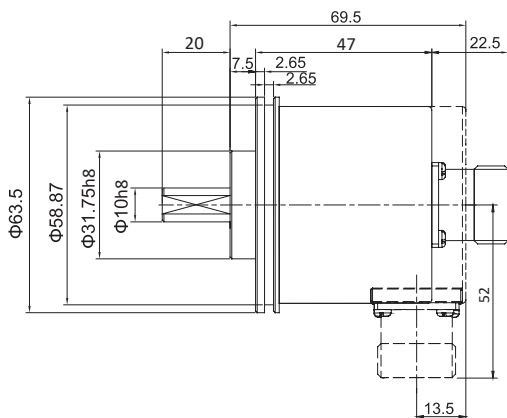
M23 12-pin



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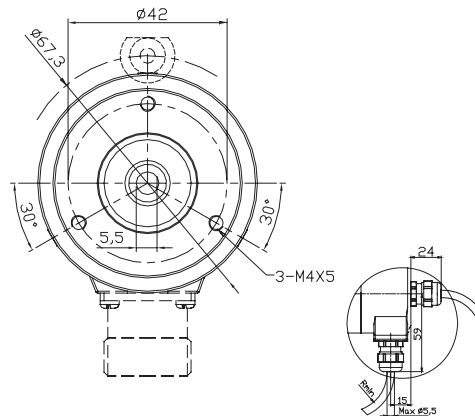
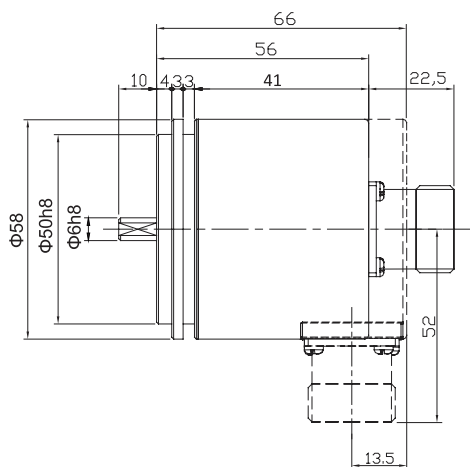
DIMENSIONS (mm)

EAC58A



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

EAC58B

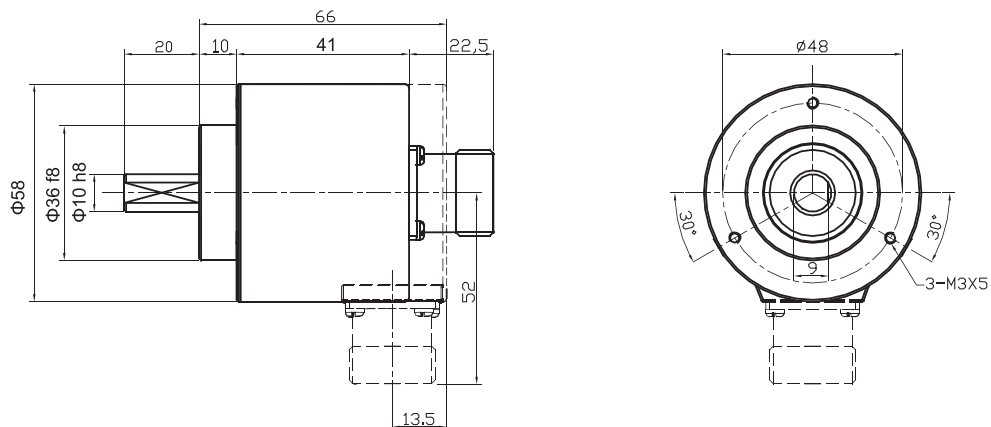


Rmin
Fasten mount: 55 mm
Hauling mount: 70 mm

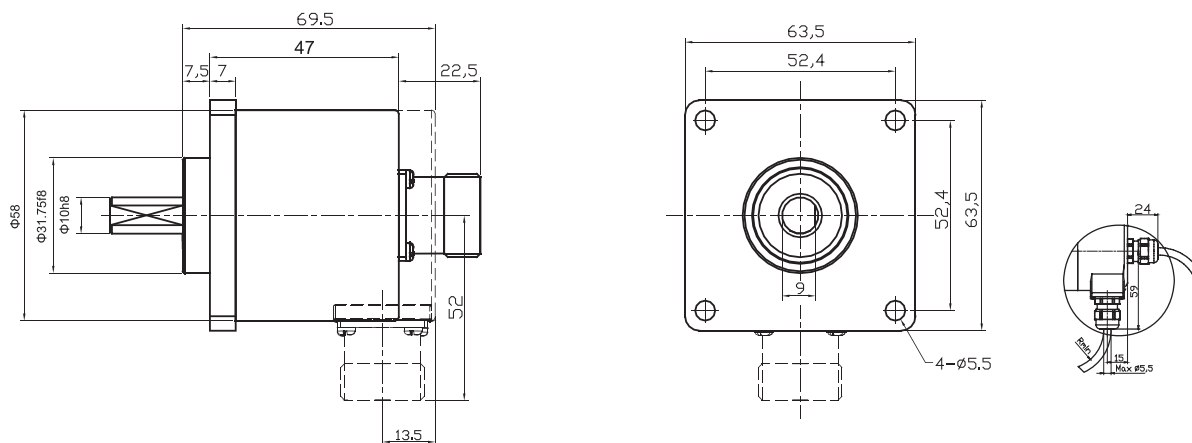
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DIMENSIONS (mm)

EAC58C



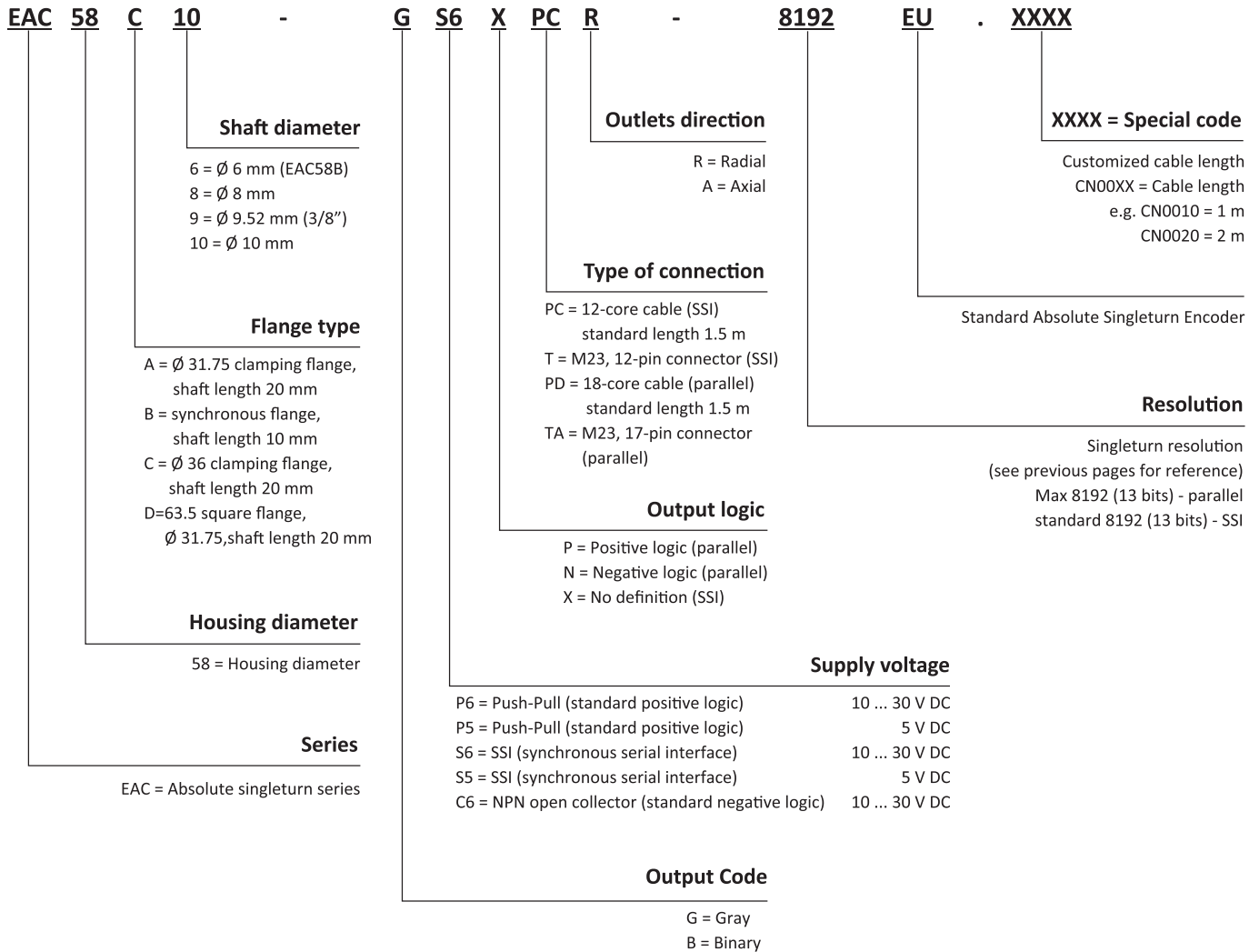
EAC58D



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

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ORDER CODE



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

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