

## High Resolution Absolute Single Turn BiSS-C Protocol Encoder



### Description:

High resolution absolute single turn BiSS-C protocol EAC50 series encoder have good performance on anti-mechanical damage and can withstand high axial and radial load. The series products adopt unique mechanical design to bear mechanical load generated by high speed motor. The encoders adopt advanced signal processing technology to realize precise signal output under the speed of 10000rpm. Meanwhile, thanks to high-precision optical sensing technology, the resolution can be up to 18bits.

### Features:

- Hollow shaft for high-speed running
- Running speed up to 10000rpm
- Reverse connection and short circuit protection
- Metal cast housing resisting to heavy shock
- IP65 protection class, widely used on field
- Compact design to save installation space

### Mechanical Characteristics

Hollow shaft diameter (mm)	Φ13.4	--1:10 taper (Optional)
Protection acc. to EN 60529	IP65	
Speed (r/m)	10000	
Max. load capacity of the shaft		
Axial load capacity	40N	
Radial load capacity	80N	
Shock resistance	50G/11ms	
Vibration resistance	10G 10~2000Hz	
Rotor moment of inertia	$6 \times 10^{-6} \text{kgm}^2$	
Starting torque	<0.03Nm	
Body material	AL-alloy	
Housing material	Zinc-alloy	
Operating temperature	-20 C ... +80 C	
Storage temperature	-25 C ... +85 C	
Weight	approx. 400g	

### Electrical Characteristics

Signal type	Absolute	Absolute
Output type	BiSS-C	BiSS-C
Output and driver	RS422	RS422
Resolution	Single turn 18bit	Single turn 18bit
Supply voltage (Vdc)	5V	10~30V
Power consumption (no load)	≤200mA	≤200mA
Permissible load	±20mA	±20mA
BiSS clock frequency	Max.10MHz	Max.10MHz
Update rate of code value	≤10μs, depends on resolution	≤10μs, depends on resolution
Signal level high	Typical 3.8V	Typical 3.8V
Signal level low	Max. 0.5V	Max. 0.5V
Rise timeTr	Max. 100ns	Max. 100ns
Fall timeTf	Max. 100ns	Max. 100ns

Note: bi-directional Biss-C; programmable parameter: resolution, code system, zero setting

### Terminal Assignment

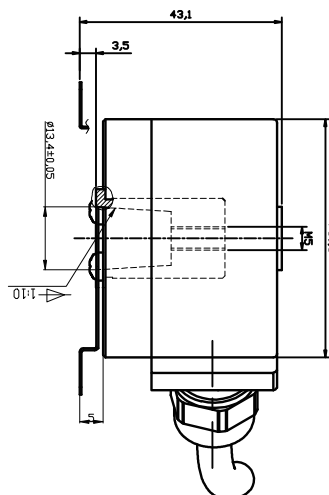
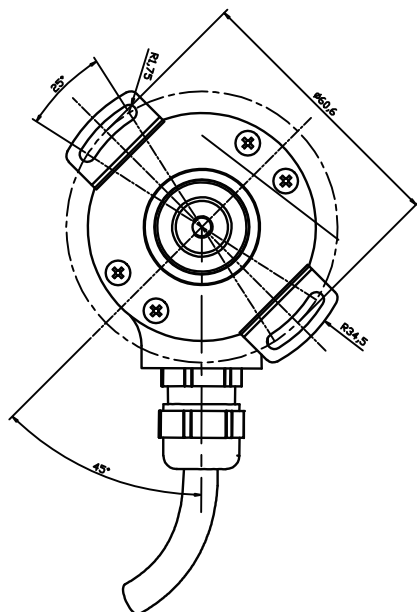
#### BiSS-C Synchronous Serial Port Wiring

Signal	0V	+Ub	+C	-C	+D	-D	ST*	V/R*	Shield
Color	WH	BN	GN	YL	GY	PK	BU	RD	⊥

# High Resolution Absolute Single Turn BiSS-C Protocol Encoder

Dimension (mm)

EAC50P13T-BI5XPR-0017



Order Code:

**EAC 50 P 13T - B I5 X P R - 0017 . XXXX**

Series EAC= absolute singleturn	Housing dimension 50=Φ50mm	Flange type P = Double-wing fixing plate	Shaft diameter 13T=Φ13.4mm Taper: 1:10 Note: for optional shaft diameter, please contact with us.	Output code type B=Binary	Output & Supply voltage I5=BiSS-C 5Vdc I6=BiSS-C 10~30Vdc	Output logic X= ninsense (BiSS-C)	Type of connection PP=cable output (standard length 0.5m)	Outlet direction R=radial	Resolution Single ture 17bit, Max. 18bit	XXXX=Special code
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