

25bits NRZ Protocol absolute multiturn encoder EAM48



Description:

High resolution absolute multiturn NRZ encoders EAM48 series have good mechanical damage resistance and can withstand high axial and radial loads. The product adopts mechanical structure design, which can bear the mechanical load generated by the high-speed operation of the motor. The product adopts advanced signal processing technology, which can realize the accurate signal output at 6000rpm. Its high-precision optical sensing technology enables a resolution of up to 25bits per turn. The multiturn part can achieve 16bits.

Features:

- Hollow shaft type installation, effective high-speed operation
- Achieve 6000rpm high-speed operation
- Protection class IP54
- NRZ protocol, meet the high speed and low ductility
- Supports simultaneous operation of sensor and register modes
- Compact design, effectively save installation space

Mechanical parameters

Shaft diameter(mm)	Φ9	-1:10 cone shaft (other optional)
Protection class	IP54	
Max.speed	6000 rpm	
Max. angular acceleration	1.0×10^5 rad/s ²	
Allow the matching shaft to runout	0.1 mm(axial)	
	0.01 mm (radial)	
Shock resistance	50 G/11ms	
Vibration resistance	10G 100...2000 Hz	
Moment of inertia	6×10^{-6} kgm ²	
Starting torque	<0.005 Nm	
Body material	Al-alloy	
Housing material	PC+PBT	
Operating temperature	-20...+85 °C	
Storage temperature	-30...+105 °C	
Relative humidity/condensation	90%, Condensation not permitted	
Weight	About 100 g (except cable)	

Electrical parameters

Output Protocol	NRZ
Output driver	RS485
Single turn resolution	25 bits
Revolution	16 bits
Supply voltage	5 VDC
Power consumption (no load)	Max. 200 mA
Absolute positioning accuracy	±80"
Repeated positioning accuracy	±3"
Communication rate	2.5MHz/5MHz
Communication interval	62.5μs

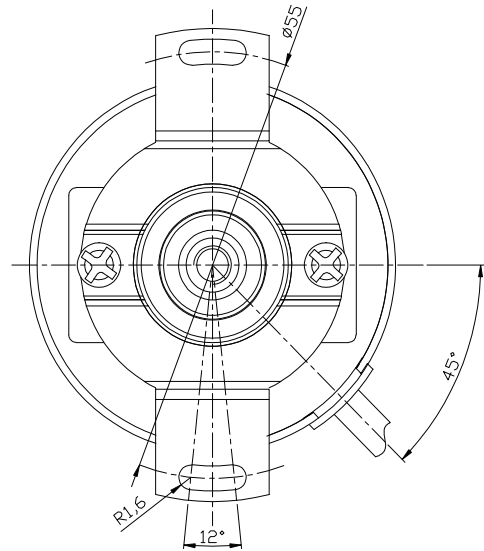
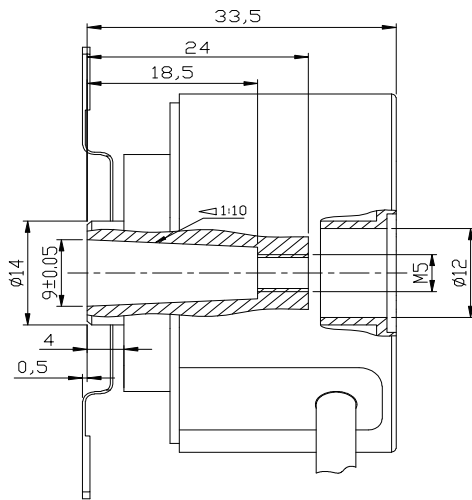
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NRZ Terminal Assignment

Signal	GND	+VCC	A	B	BAT+	BAT-	Shield
Colour	BK	RD	BU	BU/BK	BN	BN/BN-BK	⏏

Dimensions(mm)

EAM48P9T



Order Code

EAM 48 P 9T - B N5 X P R - 16/25 . XXXX

<p>Series EAM=Absolute multiturn</p> <p>Housing dimension 48=Φ48</p> <p>Flange type P = double-wing spring mounting diameter Φ55mm</p> <p>Hollow shaft diameter 9T = Φ9mm Cone shaft 1:10</p>	<p>Output code B=Binary</p> <p>Output and supply voltage N5=NRZ 5Vdc</p> <p>Output logic X= No definition (NRZ)</p> <p>Types of connection P= Direct outlet 0.5 meters</p> <p>Outlets direction R=Radial</p> <p>Resolution Revolution / single turn resolution Standard 16bit / 25bit</p> <p>XXXX=special code</p>
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