PRODUCT DATASHEET

ES-EN-C13-S005-BD-F

Industrial Sensing Component

Hollow Magnetic Encoders | 45 mm Dual-Axis Hollow Magnetic Encoder Series

Product Overview

Industrial Sensing Component with accuracy 0.01 °, axis count 2 and connection Wire-to-Board Connector.

Key Specifications

PARAMETER	VALUE	UNIT
Accuracy	0.01	°
Axis count	2	
Connection	Wire-to-Board Connector	
Current Consumption	130	mA
Installation Method	Axial hollow	
Encoder Type	Dual Absolute Magnetic Encoder	
ESD Resistance, CDM Maximum	1	kV
ESD Resistance, HBM Maximum	2	kV
Inner Rotor Height	2.9	mm

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Accuracy	0.01	°
Documented speed threshold	8000	rpm
Angle Resolution	24 bit per axis / 24 bit	
Maximum Rotation Speed	8000	rpm
ELECTRICAL		
Current Consumption	130	mA
ESD Resistance, CDM Maximum	1	kV
ESD Resistance, HBM Maximum	2	kV
Startup Time	15	ms
Connection	Wire-to-Board Connector	
Supported Output Interfaces	RS485; BiSS-C	
Power Supply	4.5 to +5.5	V
MECHANICAL		
Inner rotor interface	30	mm
Mechanical profile	Dual-axis ultra-compact	

Technical Specifications

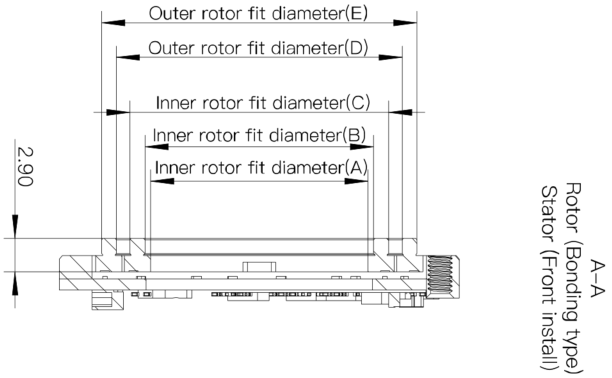
PARAMETER	SPECIFICATION	UNIT
MECHANICAL		
Outer rotor interface	35	mm
Rotor retention	Bonded	
Stator installation	Front	
Stator outside diameter	45	mm
Stator Mounting Pitch Diameter	41.6	mm
Rotor Material	Stainless steel	
Stator Fit Outer Diameter	45	mm
Inner Rotor Height	2.9	mm
ENVIRONMENTAL		
Operating Temperature Options	-40 to 85; -40 to 105; -40 to 125	°C
CONFIGURATION		
Installation Method	Axial hollow	
Encoder Type	Dual Absolute Magnetic Encoder	
ADDITIONAL SPECIFICATIONS		
Axis count	2	

Dimensional & Integration Overview

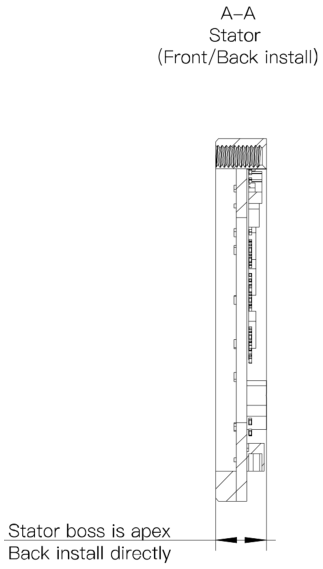
Mechanical Overview

PARAMETER	VALUE	UNIT
Inner rotor interface	30	mm
Mechanical profile	Dual-axis ultra-compact	
Outer rotor interface	35	mm
Rotor retention	Bonded	
Stator installation	Front	
Stator outside diameter	45	mm

Dimensional Drawings



Mechanical View 1



Mechanical View 2

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Outer rotor fit diameter E	Outer rotor fit diameter E: Not specified
	Outer rotor fit diameter D	Outer rotor fit diameter D: Not specified
	Inner rotor fit diameter C	Inner rotor fit diameter C: Not specified
	Inner rotor fit diameter B	Inner rotor fit diameter B: Not specified
	Axial dimension	2.90 mm
	Inner rotor fit diameter A	Inner rotor fit diameter A: Not specified
	Rotor type	Rotor: bonding type
	Stator installation method	Stator: front install
	Section view identifier	Section A-A
Mechanical View 2	Component name	Stator
	Applicable installation side	Front/back installation applicable
	Stator boss apex positioning note	Stator boss is apex
	Back installation instruction	Back install directly

View Product Online Request Engineering Data Request a Quote

01 Specifications are subject to change without notice. Verify the current product configuration before final design release.

02 2D drawings, CAD files and integration documentation are controlled documents and are supplied separately on request.