PRODUCT DATASHEET

ES-EN-C13-S028-B20-BD-F

Industrial Sensing Component

Hollow Magnetic Encoders | 30 mm Ultra-Compact 24-Bit Hollow Magnetic Encoder Series

Product Overview

Industrial Sensing Component with accuracy 0.01 °, axis count 1 and battery Mode Current 6 µA.

Key Specifications

PARAMETER	VALUE	UNIT
Accuracy	0.01	°
Axis count	1	
Battery Mode Current	6	µA
Battery Supply	2.7 to +3.6	V
Bore diameter	20	mm
Connection	Wire-to-Board Connector	
Connector Model	SM08-SURS-TF	
Current Consumption	100	mA
Installation Method	Axial hollow	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Accuracy	0.01	°
Documented speed threshold	8000	rpm
Maximum Rotation Speed	8000	rpm
Update Frequency	50	kHz
Repeatable Accuracy	0 to ±1	bit
Angle Resolution	24	bit
ELECTRICAL		
Battery Mode Current	6	µA
Current Consumption	100	mA
ESD Resistance, CDM Maximum	1	kV
ESD Resistance, HBM Maximum	2	kV
Battery Supply	2.7 to +3.6	V

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
Connector Model	SM08-SURS-TF	
Startup Time	15	ms
Connection	Wire-to-Board Connector	
Supported Output Interfaces	SSI; BiSS-C; RS485; RS422; T485; BUS; PERIOD	
Power Supply	4.5 to +5.5	V
MECHANICAL		
Bore diameter	20	mm
Mechanical profile	Ultra-compact	
Rotor retention	Bonded	
Stator installation	Front	
Stator outside diameter	30	mm

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
MECHANICAL		
Series Size	20	mm class
Overall Height	6.7	mm
Stator Mounting Pitch Diameter	26.6	mm
Stator Material	Aluminum alloy	
Rotor Material	Stainless steel	
Stator Fit Outer Diameter	30	mm
ENVIRONMENTAL		
Operating Temperature Options	-40 to 85; -40 to 105; -40 to 125	°C
CONFIGURATION		
Installation Method	Axial hollow	
Encoder Type	Absolute Magnetic Encoder	
ADDITIONAL SPECIFICATIONS		
Axis count	1	

Dimensional & Integration Overview

Mechanical Overview

PARAMETER	VALUE	UNIT
Bore diameter	20	mm
Mechanical profile	Ultra-compact	
Rotor retention	Bonded	
Stator installation	Front	
Stator outside diameter	30	mm
Series Size	20	mm class

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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.