

## PRODUCT DATASHEET

# ES-EN-C13-S007-B08

## Industrial Sensing Component

Hollow Magnetic Encoders | 27 mm Compact-Profile Hollow Magnetic Encoder Series

### Product Overview

Industrial Sensing Component with accuracy 0.05°, axis count 1 and battery Mode Current 35 µA.

### Key Specifications

| PARAMETER                | VALUE                     | UNIT |
|--------------------------|---------------------------|------|
| Accuracy                 | 0.05                      | °    |
| Axis count               | 1                         |      |
| Battery Mode Current     | 35                        | µA   |
| Battery Supply           | 2.7 to +3.6               | V    |
| Bore diameter            | 8                         | mm   |
| Current Consumption      | 60                        | mA   |
| Installation Method      | Axial hollow              |      |
| Encoder Type             | Absolute Magnetic Encoder |      |
| FPC Connection Available | Yes / 1                   |      |

## Technical Specifications

| PARAMETER                          | SPECIFICATION                                | UNIT       |
|------------------------------------|----------------------------------------------|------------|
| <b>PERFORMANCE</b>                 |                                              |            |
| Accuracy                           | 0.05                                         | °          |
| Documented speed threshold         | 20000                                        | rpm        |
| Maximum Rotation Speed             | 20000                                        | rpm        |
| Temperature Drift                  | 0.01                                         | ° per 3 °C |
| Update Frequency                   | 27                                           | kHz        |
| Angle Resolution Options           | 16 or 17                                     | bit        |
| Repeatable Accuracy                | 0 to ±1                                      | bit        |
| <b>ELECTRICAL</b>                  |                                              |            |
| Battery Mode Current               | 35                                           | µA         |
| Current Consumption                | 60                                           | mA         |
| FPC Connection Available           | Yes / 1                                      |            |
| Wire-to-Board Connection Available | No / false                                   |            |
| Battery Supply                     | 2.7 to +3.6                                  | V          |
| Startup Time                       | 15                                           | ms         |
| Supported Output Interfaces        | SSI; BiSS-C; RS485; RS422; T485; BUS; PERIOD |            |

## Technical Specifications

| PARAMETER                        | SPECIFICATION                     | UNIT     |
|----------------------------------|-----------------------------------|----------|
| <b>ELECTRICAL</b>                |                                   |          |
| Power Supply                     | 4.5 to +5.5                       | V        |
| <b>MECHANICAL</b>                |                                   |          |
| Bore diameter                    | 8                                 | mm       |
| Mechanical profile               | Compact Profile                   |          |
| Stator outside diameter          | 27                                | mm       |
| Series Size                      | 10                                | mm class |
| Rotor Inner Diameter             | 8                                 | mm       |
| Stator Mounting Pitch Diameter   | 23                                | mm       |
| Stator Shield Outer Diameter     | 20                                | mm       |
| Mechanical Configuration         | Compact                           |          |
| Stator Outer Diameter            | 27                                | mm       |
| <b>ENVIRONMENTAL</b>             |                                   |          |
| Operating Temperature Options    | -40 to 85; -40 to 105; -40 to 125 | °C       |
| <b>CONFIGURATION</b>             |                                   |          |
| Installation Method              | Axial hollow                      |          |
| Encoder Type                     | Absolute Magnetic Encoder         |          |
| <b>ADDITIONAL SPECIFICATIONS</b> |                                   |          |
| Axis count                       | 1                                 |          |

## Dimensional & Integration Overview

### Mechanical Overview

| PARAMETER                      | VALUE           | UNIT     |
|--------------------------------|-----------------|----------|
| Bore diameter                  | 8               | mm       |
| Mechanical profile             | Compact Profile |          |
| Stator outside diameter        | 27              | mm       |
| Series Size                    | 10              | mm class |
| Rotor Inner Diameter           | 8               | mm       |
| Stator Mounting Pitch Diameter | 23              | mm       |

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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.