

# **ESM14AB “Micro Encoder Module”**

## **Absolute Magnetic Sensor**

### **Hardware Version G1A**

## **Specifications**

**14-bit Absolute Angle Output • I2C • Contactless Magnetic • Very Small Form Factor**

- Austria Micro Systems AS5048B encoder
- 14-bit absolute angle output
- I2C Interface
- Daisy chain more than one encoder or other RE expansion module
- Contactless angle measurement
  - Mount this module on one side of the joint
  - Mount a small magnet (included) on the other side of the joint
- Installation specific setting of zero position using AS5048B built-in fuse (one-time, non-reversible)
- Very small form factor: diameter: 22mm (0.87in), thickness: 2.8mm (0.11in)
- Part of the RE modular system, allowing interfacing without the need for custom cables, simply order a ZIF cable from Digikey

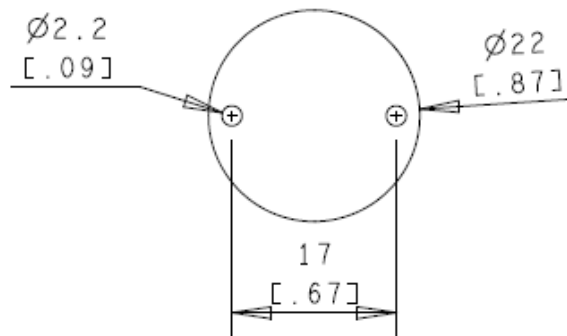
## 1 ELECTRICAL SPECIFICATIONS

### 1.1 Functions and Interfaces

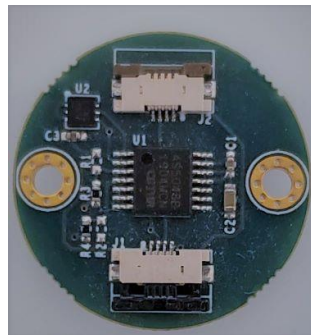
- Input Voltage: 3.3VDC
- Input Current: see AS5048B datasheet
- Interface: I<sup>2</sup>C

## 2 MECHANICAL SPECIFICATIONS

All dimensions are in mm [inches].



**Figure 1: Mechanical Dimensions.**



**Figure 2: ESM14AB Photo.**

### 3 DOCUMENT REVISION HISTORY

Version	Description of Changes	Author	Approval
1.0	Document first created.	AB	AB