

ABSOLUTE



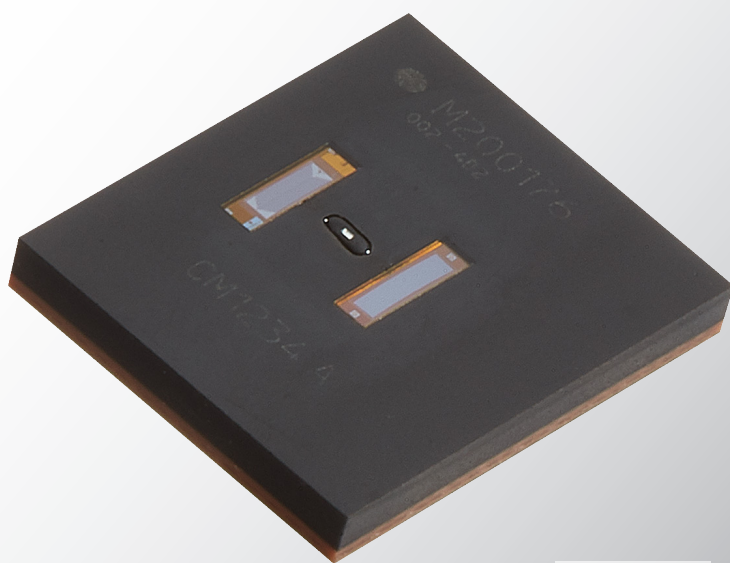
MicroE
Encoders

Aura™ Series Encoders

Absolute Encoders for
High Performance,
High Volume Designs

Aura is a high resolution absolute encoder in an extremely small, low power SMT package. High accuracy and run speed, combined with wide alignment tolerances, deliver an optimal solution for high volume OEM designs.

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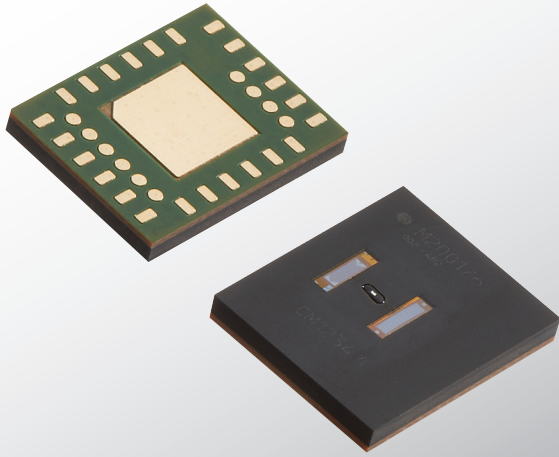
Actual Size



9 x 7 mm

Aura Series Encoders

Absolute Encoders for High Performance, High Volume Designs



Absolute, High Resolution, Low Power.

Aura employs a short wavelength LED for precise absolute position decoding. An incremental scale track and advanced sensor produce pure sinewave signals, enabling high resolution interpolation with run-speeds up to 83,721 rpm (with 18 mm scale). High repeatability and accuracy satisfy the most demanding applications.

The small, low power consumption SMT package integrates easily into an OEM PCB. Generous alignment tolerances facilitate installation. Built-in scale eccentricity compensation improves production efficiency and eliminates the cost of dual averaging encoders.

High speed BiSS-C delivers the minimal latency required for high bandwidth control loops. SSI, SPI and ABZ interfaces complete the comprehensive connectivity options. ABZ provides communication redundancy and the flexibility to operate incrementally for the lowest latency.

SmartPrecision™ III is intuitive software for calibration, alignment and status monitoring. Encoder data can be sampled and recorded in a CSV file. To simplify installation, custom hubs with pre-mounted encoder scales can be offered.

Benefits

- Absolute position feedback
- Small, low power SMT package
- High resolution and accuracy
- High run-speed
- Wide alignment tolerances
- Scale eccentricity compensation
- Low communication latency
- Comprehensive connectivity

Specifications

Dimensions:	9.0 x 7.0 x 1.2 mm
Interfaces:	BiSS-C, SSI, SPI, ABZ
Resolution:	18 to 22 bit*
Latency:	5 μ sec (BiSS-C)
Accuracy:	$\pm 0.01^\circ$
Repeatability:	± 1 LSB
Speed:	83,721 rpm (with 18 mm scale)
Input Voltage:	5 V _{DC} ± 0.5
Supply Current:	45 mA, unterminated outputs
Operating Temperature:	-20 to 85 °C
Weight:	1.5 g
Scales OD:	18 and 33 mm (standard) 16 to 45 mm (custom)

Specifications subject to change.

*22 bits with averaging over 300 samples

RoHS
CE



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