



Image without details



Operating Instructions (Authorized Documentation)

AE ECI 4010, AE EBI 4010
180 mm Hollow Shaft
Functional Safety

English (en)
09/2026

Find freely available documents for your product at:
www.heidenhain.com/documentation

Product ID

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1366525

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1 Fundamentals

1.1 About these instructions

These Instructions contain all the information and safety precautions needed for the proper operation of the product according to its intended use.



Further information is available in specific documents, depending on the life-cycle phase of the product and on the target group for the activity.

Further information: "Information based on the document type, the life-cycle phase of the product, and the target group", Page 2

1.2 Notes on reading this document

WARNING

Fatal accidents, personal injury or property damage caused by non-compliance with the documentation!

Failure to comply with the documentation may result in fatal accidents, personal injury or property damage.

- Read the documentation carefully from beginning to end
- Keep the documentation for future reference

2 Safety

2.1 Intended use

The products of this/these series are encoders for position measurement.

The products are intended for use in research facilities, commercial applications, and in an industrial environment.

The products must be used only in accordance with the information based on the life-cycle phase of the product and on the target group.

Further information: "Information based on the document type, the life-cycle phase of the product, and the target group", Page 2

2.2 Improper use

Any use not specified in "Intended use" is considered improper use. The company operating the device is solely liable for any damage resulting from improper use.

2.3 Obligations of the operating company

The company operating the product must provide the personnel with the most current version of all documentation on the product.

2.4 General safety precautions



Mounting and initial configuration must be conducted by a qualified specialist in compliance with local safety regulations.



Encoders and encoder accessories may only be repaired by trained HEIDENHAIN technicians.

WARNING

Fatal accidents, personal injury, or property damage when engaging or disengaging live connecting elements!

Engaging or disengaging connecting elements while the system is under power may result in fatal accidents, personal injury, or property damage.

- Do not engage or disengage any connecting elements while the product is under power.



Encoders and encoder accessories that have contributed to the failure of a safety function in the application must be returned to HEIDENHAIN Traunreut.

3 Declaration of Conformity

The encoder complies with the requirements of the following directives:

EU: 2006/42/EC (valid until 2027-01-19),
(EU) 2023/1230 (valid as of 2027-01-20);
2014/30/EU; 2011/65/EU



4 Information based on the document type, the life-cycle phase of the product, and the target group



The following documents must be read and observed by the stated target groups before mounting, initial configuration, or disposal of the encoder.



Freely available documents are available at www.heidenhain.com/documentation.

Further documents are available upon [Request](#).

Installation technician, Designer, Control manufacturer

Document	Document ID	Life-cycle phase of the product/Contents			
Operating Instructions Operating Instructions AE ECI 4010, AE EBI 4010 180 mm Hollow Shaft Functional Safety	1366525	■ Operation of the unit	✓	✓	✓
Mating Dimensions	Website Search for product ID	■ External dimensions	✓	✓	
Mounting Instructions Mounting Instructions AE ECI 4010, AE EBI 4010 EnDat22 Functional Safety	1214405	■ Mounting the product	✓	✓	
Mounting Instructions Mounting wizard for modular inductive rotary encoders with EnDat22	1082415	■ Mounting the product	✓	✓	
Product Information Product Information ECI 4010, EBI 4010 - Absolute Rotary Encoders with 180 mm Hollow shaft Functional Safety	1214288	■ Specifications ■ Mating Dimensions		✓	✓
Brochure Interfaces of HEIDENHAIN Encoders	1078628	■ Interfaces and measuring methods ■ Electrical connection ■ Interface electronics		✓	✓
Brochure Encoders for Servo Drives	208922	■ Technical features, operating conditions, and mounting information ■ Specifications, mating dimensions ■ Electrical connection ■ Accessory		✓	✓
Brochure Cables and Connectors	1206103	■ Cables and connectors for signal transmission between the position measuring system and the subsequent electronics	✓	✓	✓
Technical Information Safety-Related Position Measuring Systems	596632	■ General description of the Safety concept		✓	✓
Product Notes JAE FI Series Connector	576762 Request	■ Additional information	✓	✓	
Specification Supplementary Catalog of Measures for Step Monitoring (SIL3, PL e) - System Specification	1000344 Request	■ Implementation requirements for EnDat 2.2 Safe in SIL3/PL e/Cat. 4			✓
Specification Specification for Safe Control	533095 Request	■ Implementation requirements for EnDat2.2 Safe			✓
Specification Pin layout	Website Search for product ID	■ Connection points on connecting elements, cables, or terminal blocks	✓	✓	✓
Specification CAD	Website Search for product ID	■ Views ■ Dimensions	✓	✓	
Declaration of Conformity	Website Search for product ID	■ Conformity with applicable directives		✓	✓
Recycling Instructions Rotary encoders	1508280	■ Disposal ■ Recycling			

Technical support

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