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EVALUATION KIT – BISS C - KIT ENCODER
KCD-BC00B-1617-BRRC-2RW

Scope of Supply

> Kit Encoder With BISS C Interface
  KCD-BC00B-1617-U01C-JAQ

> Hub Shaft Flange

> Set of Reducing Adapters

> Connection Cable 2 m

Scope of Application

The Evaluation Kit is intended to be used for an initial test of the kit encoder output signal and shall make it simple for users to attach it to a motor without having to work on mechanical integration or calibration. The included additional hub shaft flange is providing a well defined and robust mechanical interface for the initial test and the kit encoder has been fully tested and calibrated on this flange.

After a successful test on the motor, the kit can be disassembled from the hub shaft flange and be mounted to the motor directly. In this case calibration and test must be repeated to reach the specified accuracy and ensure a proper operation. Please refer to the BISS-C user manual for further information about the necessary commands.

1. Kit Encoder With BISS C Interface

The evaluation kit includes one kit encoder type KCD-BC00B-XXXX-U01C-JAQ

For technical details of this kit encoder, please refer to the datasheet for KCD-BC00B-XXXX-U01C-JAQ under:

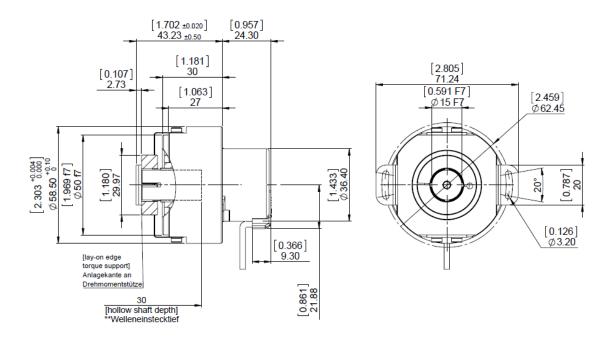> **https://www.posital.com/en/products/kit-encoders/kit-encoders.php**

KCD-BC00B-1617-U01C-JAQ includes all relevant parts such as:

- Bottom Shield
- Magnet
- PCB on a Kit Carrier
- Housing
- Cable Clip

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2. Hub Shaft Flange

The included hub shaft flange (Art. No.: 10038966) has a 15 mm shaft diameter, see drawing below. It can be adapted to smaller shaft diameters using the reducing adapters (described under „3")

All dimension in [inch] mm.

3. Reducing Adapters

Three different reducing adapters are included (Art. No.: 32220296, Set of 3). They can be used to reduce the shaft diameter and attach the evaluation kit to motors shafts with diameters of 8, 10 or 12 mm, see picture enclosed.

Important: The use of reducing adapters might have an impact on the accuracy

EVALUATION KIT – BISS C - KIT ENCODER
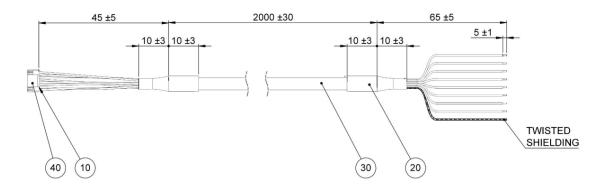## KCD-BC00B-1617-BRRC-2RW

4. Connection Cable For Laboratory Tests

IXARC Kit Encoders are designed for the use within motors at high temperatures and a suitable cable has to be chosen for the motor integration. For first tests in the laboratory outside of the motor, a longer cable is more convenient and ambient temperatures are much lower. The cable included in the evaluation kit (art. no. 10039297, "KED BiSS Kit - Evaluation Cable") has a length of 2 m and is intended for these laboratory tests. It has a JST connector on one side and open wire ends on the other side.

Connection Plan:

JST Connector	Wire Color	Signal
Pin 1	Blue	GND
Pin 2	Pink	Preset
Pin 3	Gray	Config (Kit control box)
Pin 4	Green	Data + (SLO+)
Pin 5	Yellow	Data - (SLO-)
Pin 6	White	CLK - (MA-)
Pin 7	Brown	CLK + (MA+)
Pin 8	Red	VCC

Drawing:

All dimension in mm

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External References

BISS-C Master Products

Regarding the BISS-C interface, the following two products from manufacturer iC-Haus are confirmed to be fully compatible. There are BISS-C masters from other manufacturers too, but they have not been tested by POSITAL for compatibility.

MB5U - High Performance Galvanic Isolated BiSS (SSI)-to-PC Adapter (USB)

›   https://www.ichaus.de/MB5U

This master has an API for Windows and a "fast read mode" to log up to 10000 datasets with time stamp.

MB3U – Lower Performance BiSS (SSI)-to-PC Adapter (USB)

›   https://www.ichaus.de/product/MB3U

This basic master is more than 50% cheaper than MB5U and allows receiving and transmitting messages. It can be used to program the encoder, initiate calibration and read out position data or configuration data. However, the real-time performance of this device is insufficient to test characteristics of the kit encoder under dynamic conditions.

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