



#### Scope of Supply

- Kit Encoder With BISS Line Interface KCD-B400B-1617-U01x-JAN, x = placeholder
- 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-Line user manual for further information about the necessary commands.

#### 1. Kit Encoder With BISS Line Interface

The evaluation kit includes one kit encoder type KCD-B400B-XXXX-U01X-JAN
For technical details of this kit encoder, please refer to the datasheet for KCD-B400B-XXXX-U01X-JAN under:

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

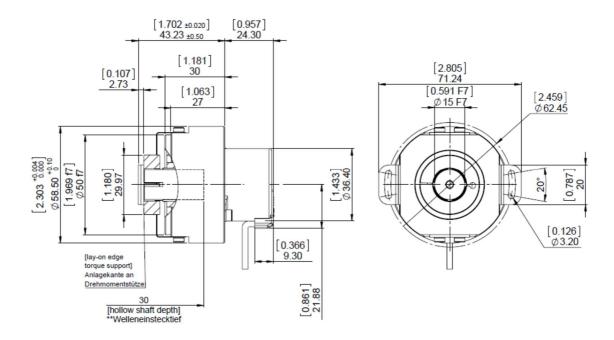
KCD-B400B-1617-U01x-JAN includes all relevant parts such as:

- Bottom Shield
- Magnet
- PCB on a Kit Carrier as extra part or pre-assembled in housing
- Housing
- Cable Clip



### 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



### 4. Connection Cable For Laboratory Tests

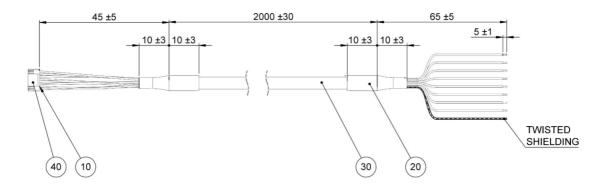
IXARC Kit Encoders are designed for the use within motors at high temperatures and a suitable cable has to be chosen for the motor integration. For first tests in the laboratory outside of the motor, a longer cable is more convenient and ambient temperatures are much lower. The cable included in the evaluation kit (art. no. 10044768, "KCD BiSS Line 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	Data –
Pin 3	Gray	Data +
Pin 4	Red	VCC
Pin 5	Yellow	Reserved (do not connect)
Pin 6	Green	Reserved (do not connect)

## Drawing:



All dimension in mm



#### **External References**

#### **BISS-Line Master Products**

Regarding the BISS-Line interface, the following two products from manufacturer iC-Haus can be used to realize a BiSS Line communication and with the corresponding IP core, if no hardware exists:

- MB3U, MB3U-I2C adapter
- iC-BL EVAL BL1M, Evaluation Kit based on FPGA solution

You can also request just the IP core for BiSS Line for direct implementation on your FPGA without using above hardware.

For more details about the master implementation please contact the manufacturer iC-Haus.

iC-Haus GmbH - Am Kuemmerling 18 - 55294 Bodenheim - Germany,

Phone: +49 6135 9292-0, email info@ichaus.de

### **Document History**

Date	Change
(yyyymmdd)	
20180328	Changed color definition of cable for reserved signals (pin 5,6) to yellow and green.
20180328	Changed type key of kit to version with placeholder for "C" and "K" version.

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