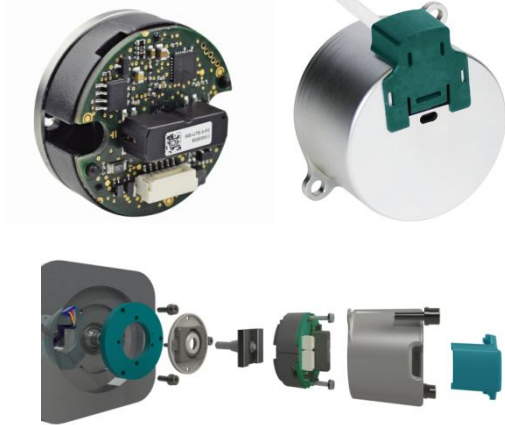


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KCD-BC00B-1617-U01X-JAQ



IXARC Kit Encoder With BISS C Interface

- ▶ Kit Encoder for Integration to Motors, Robots and Machinery¹
- ▶ Electrical Resolution: Up To 17 bit
- ▶ Multiturn Range: Up To 32 Bit
- ▶ 36 mm Diameter
- ▶ Energy-Harvesting-System Based On Wiegand Effect
- ▶ No Battery – No Maintenance
- ▶ Easy Installation with Self-Calibration

1. Interface

Interface	BiSS C
Programming Functions	Electronic Calibration, Counter Test
Min Interface Cycle Time	50 μ s

2. Electrical Data

Supply Voltage	4.75-12.5 VDC
Power Consumption	\leq 0.3 Watt
Start-up time	Max 1 s
Clock Input	RS 422
Clock Frequency	100 kHz - 10 MHz
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
MTTF	20 years
Max. Permissible Electrical Speed	12.000 RPM

¹ The use of these kit encoders for the production of industrial rotary encoders is prohibited. Applications in rotary encoders are protected by several worldwide patents (such as WO 2004/046735 A1) and require licensing.

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3. Sensor

Singleturn Technology	Magnetic
Electrical Resolution Singleturn	17 bit
Multiturn Technology	Self powered magnetic pulse counter (no battery, no gear)
Multiturn Range	16 bit
Accuracy (INL)	$\pm 0.0878^\circ$ (≤ 12 bit)
Counting Direction (Default)	Clockwise shaft movement (front view on shaft)

4. Environmental Specifications

Operating Temperature	-40 °C (-40 °F) – +105 °C (221 °F)
Shock Resistance	≤ 200 g (half sine 6 ms, EN 60068-2-27)
Permanent Shock Resistance	≤ 20 g (half sine 16 ms, EN 60068-2-29)
Vibration Resistance	≤ 30 g (10 Hz – 1000 Hz, EN 60068-2-6)

5. Mechanical Data

Housing Material	Steel
Housing Coating	Cathodic corrosion protection
Stator Type	POSITAL standard
Rotor Type	POSITAL standard
Max. Permissible Mechanical Speed	12,000 RPM

6. Electrical Connection

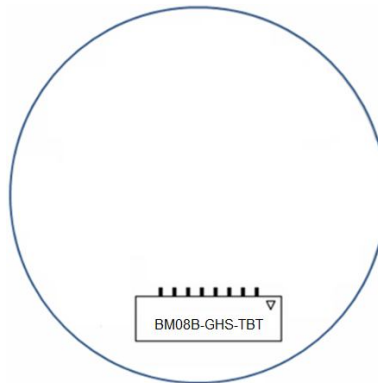
Connection Orientation	Axial
Connector	JST BM08B-GHS-TBT

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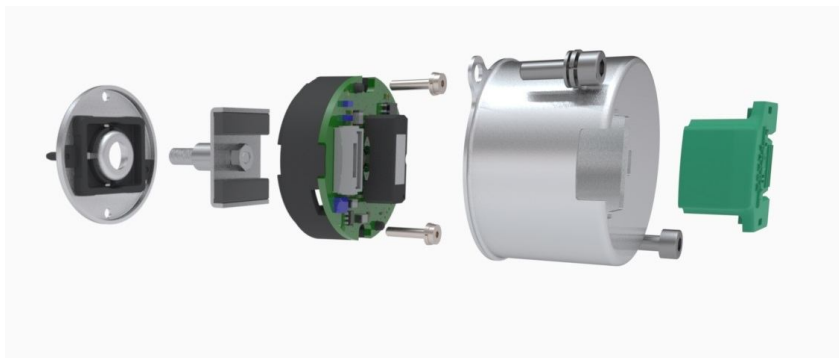
KCD-BC00B-1617-U01X-JAQ

7. Connection Plan



Pin	Signal
1	GND
2	Reserved (do not connect)
3	Reserved (do not connect)
4	Data + (SLO+)
5	Data - (SLO-)
6	CLK - (MA-)
7	CLK + (MA+)
8	VCC

8. Dimensional Drawing for Type KCD-BC00B-1617-U01C-xxx

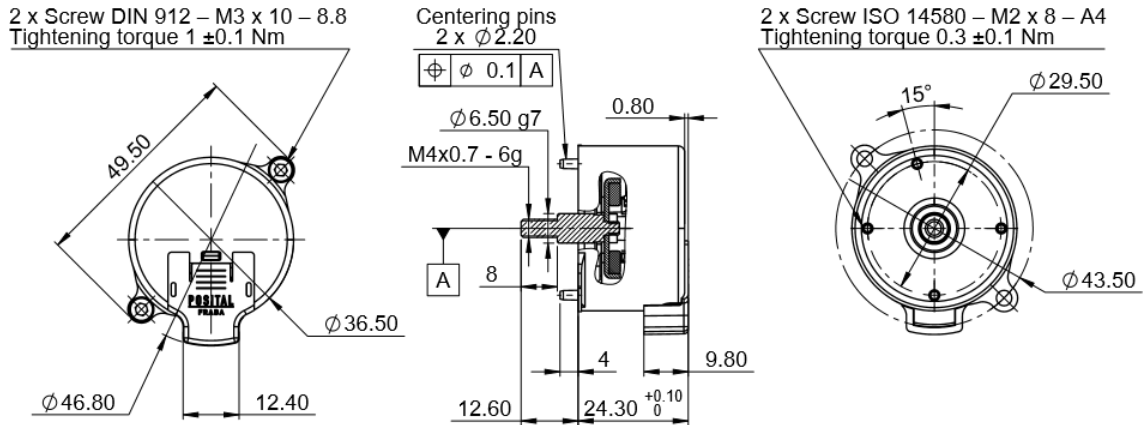


This kit version contains 4 main parts to be assembled from left to right side: shielding, magnet, carrier with PCB and housing.

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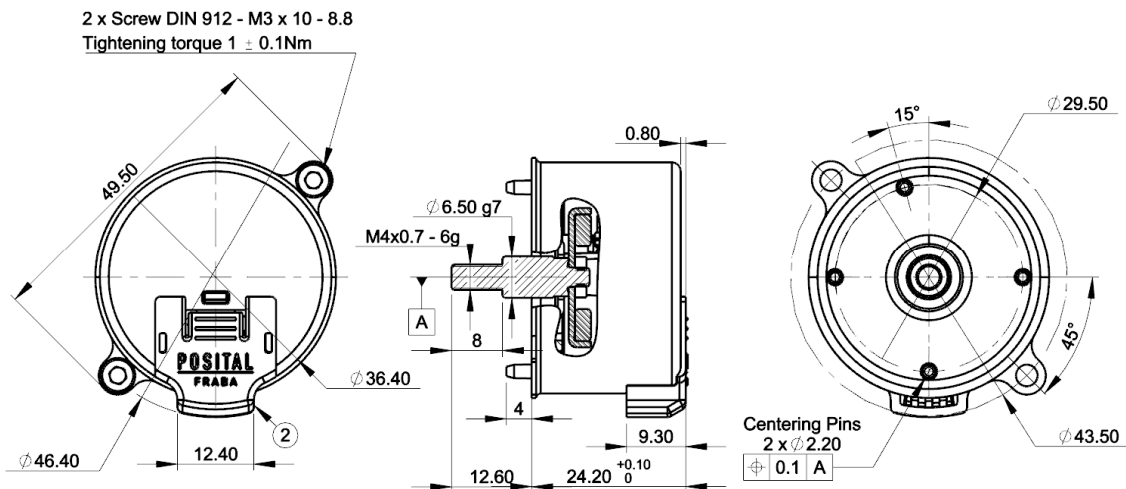


All dimension in [inch] mm. This drawing and the information contained is for general presentation purposes only. Please refer to the "Download" section for detailed technical drawings.

9. Dimensional Drawing for Type KCD-BC00B-1617-U01K-xxx



This kit version is quite easy to mount and contains 3 main parts to be assembled, from left to right side: shielding, magnet and housing with pre-assembled carrier inside.



All dimension in [inch] mm. This drawing and the information contained is for general presentation purposes only. Please refer to the "Download" section for detailed technical drawings.

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KCD-BC00B-1617-U01X-JAQ

10. Version Space

KCD-BC00B-1617-U01K-JAQ*

3-part assembly, PCB connector exit

KCD-BC00B-1617-U01K-2RW*

3-part assembly, PCB connector and accessory 2 m PVC cable

KCD-BC00B-1617-U01C-JAQ

4-part assembly, PCB connector exit

KCD-BC00B-1617-U01C-2RW

4-part assembly, PCB connector and accessory 2 m PVC cable

***Types recommended for new design.**

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