Scherer Tech
BiSS Competence Center

BiSS ASSOCIATION

BiSS C INTERFACE CERTIFICATE OF COMPLIANCE

Certificate Number	1A16A1
Issue Date	2024-03-05
Issued to	Maxon Motor AG
This certificate confirms that representative samples of	ROTARY POSITION SENSOR **TSX-RIO (Incremental + Absolute or Absolute only)** as specified below have been investigated by Scherer Tech in accordance with the Specification indicated on this Certificate. Approval is hereby granted of marking of these devices with

BiSS INTERFACE CERTIFIED | Compliant BiSS Device www.BiSS-interface.com

Specification	BiSS Interface Protocol Description (BiSS C) Rev D2 BiSS C Certification Test Cases 5.02
Additional Information	See websites of BiSS Association e.V. at biss-interface.com and Scherer Tech at www.scherer-tech.de for additional information.

Dr. Marc Scherer, Director BiSS Certification Program
Scherer Technology UG, Hechingen, Germany

Any information and documentation involving the Compliant BiSS Device Mark are provided on behalf of BiSS Association e.V. or Scherer Technology UG.

The certificate does not constitute or imply any guarantee as to the usability or safety of the related BiSS Device within its application. The section „Representation and Liability“ of the BiSS Device Manufacturing Agreement (BDMA) applies to the certification services accordingly. Any other liability is excluded with exemption of any liability based on the German Product Liability Act, gross negligence, fraud, or if a party’s negligent acting results in death or injury to life, limb or health.

For questions, please contact us at www.scherer-tech.de

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List of Tested Products

This is to certify that representative samples of the following product(s) were tested according to the requirements of the specification indicated on this certificate.

ROTARY POSITION SENSORS
TSX-RIO Incremental + Absolute or
TSX-RIO Absolute

Device Names: TSX-RIO V3 Encoder
TSX 40 RIO Encoder
TSX RIO V6 FFC Encoder

Variants: Single wire cables up to 300 mm length, with or without connector, Pins

1. TSX-RIO V3: 708738, and equivalent 708739, 707944, 689854, 696923

   Tested devices:

   1.1. System Serial Number: **712362**
   Encoder Type: **689854 TSX-RIO V3 Incremental + Absolute**
   Report: 3C1A8Z1F of 2022-09-05

   1.2. System Serial Number: **712363**
   Encoder Type: **689854 TSX-RIO V3 Incremental + Absolute**
   Report: 3C1A8Z1G of 2022-09-05
   Comment: the value 1 in register 0x41 (EDS-Bank) was invalid. Manufacturer confirms that content of 0x41 is 0 in production version.

   1.3. System Serial Number: **719465**
   Encoder Type: **708738 TSX-RIO V3 Incremental + Absolute**
   Report: 3C1A8Z1J of 2022-09-05

   1.4. System Serial Number: **719467**
   Encoder Type: **708738 TSX-RIO V3 Incremental + Absolute**
   Report: 3C1A8Z1K of 2022-09-05

2. TSX 40 RIO: 813311 and equivalent 811454 (radial connector dispatch, iC-PZ2656), 811460 (radial connector dispatch, iC-PZ205), 813312 (axial connector dispatch, iC-PZ205), 813464 (axial cable 200mm, iC-PZ2656), 813531 (radial cable 200mm, iC-PZ205), 813532 (axial cable 200mm, iC-PZ205)

Tested devices:

2.1. System Serial Number: **712362**
Encoder Type: **813311 TSX-RIO V3 a (r, s, t) Incremental + Absolute**
Report: 1A16A1B of 2024-03-03

2.2. Device Number: **712363**
Encoder Type: **813311 TSX-RIO V3 a (r, s, t) Incremental + Absolute**
Report: 1A16A1A of 2024-03-03

3. TSX RIO V6 FFC: 801669 and equivalent 716873

Tested devices:

3.1. System Serial Number: **715661**
Encoder Type: **801669 TSX-RIO V6 FFC (a, r, s, t) Absolute**
Report: 1A16A1C of 2024-03-03
Comment: the value in register 0x41 (EDS-Bank) was invalid (0x24). Manufacturer confirms that content of 0x41 is 0 in production version.

3.2. System Serial Number: **715661**
Encoder Type: **716873 TSX-RIO V6 FFC (a, r, s, t) Absolute**
Report: 3C1A8Z1H of 2022-09-05
Comments:
- BISS_NTOA (Addr. 0x6, 0x0A; bit 2) had to be cleared by the examiner
- Command 0x41 had to be executed by the examiner
- Manufacturer confirms that these issues are resolved in production version