

EU TYPE-EXAMINATION CERTIFICATE

1. EU type-examination Certificate (Module B)
2. Equipment or Protective System intended for use in potentially explosive atmospheres (Directive 2014/34/EU)



3. EU type examination certificate Nr **ITS09ATEX16846X R.1**

4. **Product:** Incremental and Absolute Encoder REXM

5. **Manufacturer:** Scancon Encoders A/S **Applicant:** Scancon Encoders A/S

6. **Address:** Huginsvej 8, 3400 Hilleroed, Denmark **Address:** Huginsvej 8, 3400 Hilleroed, Denmark

7. This product and any acceptable variation thereto are specified in the schedule to this certificate and therein referred to.

8. INTERTEK ITALIA S.p.A., Notified Body n° 2575 in accordance with article 17 of the Directive 2014/34/EU of the European Parliament and Council of the 26 February 2014, certifies that the equipment or protective system has been found to comply with the essential Health and Safety Requirements relating to the design and construction of equipment and protective system intended for use in potentially explosive atmosphere, given in Annex II of the Directive.

The examination and tests results are recorded in confidential technical evaluation Intertek Report Nr. 104705584CHE-001 dated 09 December 2021.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018 and EN 60079-1:2014 except in respect of those requirements referred to at item 16 of the Schedule.

10. If the sign X is placed after the certificate number, it indicates that the product is subject to Special Conditions for Safe Use specified in the schedule to this certificate.

11. This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12. The marking of the product shall include the following:



I M2 Ex db I Mb
-40°C<Tamb<+70 °C

17 December 2021

Certificate issue date

Paul Moss
Certification Officer
Intertek Italia S.p.A. (NB 2575)



PDR N° 277B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

Signatory of EA, IAF and ILAC Mutual Recognition Agreements



This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

Intertek Italia S.p.A. Via Miglioli, 2/A - 20063 Cernusco sul Naviglio, Milano - Italy



SCHEDULE

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13. DESCRIPTION OF THE EQUIPMENT OR PROTECTIVE SYSTEM

The Encoder Type REXM is a small cylindrical unit (68mm in diameter with length dependent on model) containing low voltage electronic components. The enclosure is manufactured from either stainless steel or acid-proof stainless steel. The enclosure comprises of cylindrical flamepaths between the End Cap & Cover Tube and Cover Tube & Housing. The rotating shaft forms a cylindrical flamepath through the housing controlled by k & m factors and is held in place with 2 precision roller element bearings. The enclosure has one threaded cable entry fitted with either a certified M20x1.5, M25x1.5, 1/2" NPT or 3/4" NPT cable gland or an M15 integral cable gland. Both internal and external earthing is provided.

Additionally, the encoders meet IP64/65/66/67/68 (1hour/1 meter) in accordance with IEC 60529.

Electrical Specification:

4.5 to 30Vdc or 5 to 30Vdc

100mA max

CE Marking shall be accompanied by the identification number of the Notified Body responsible for surveillance of production.

14. DRAWINGS AND DOCUMENTS

TITLE	DOCUMENT Nr	LEVEL	DATE
Certification drawing – H.Shaft/shaft for 2REX/REXM Ex dwg	00131738C	3	29-11-2017
*Certification drawing – Housing for 2REXI-2REX-REXM Ex dwg	00132210C	9	14-06-2021
*Certification drawing – End Cap for 2REX/REXM Ex-dwg	00132416C	4	14-06-2021
Certification drawing – Cover Tube 2REX/REXM Ex-dwg	00132417C	2	29-11-2017
*Certification drawing – Cap 2REX/REXM Ex dwg	00132573C	3	14-06-2021
*Certification drawing – Cap 2REX/REXM Ex dwg	00132616C	3	14-06-2021
Seal Ø4,5 ZruElast 70189 Ex dwg	00141224	4	29-11-2017
Certification drawing – Cable Gland M15x1	00142425C	2	29-11-2017
*Warning Label for mining and surface Ex-dwg.	00241009	1	11.12.2018
Seal Ø7 ZruElast 70189 Ex dwg	00143108	7	29-11-2017
Internal / external earthing 2REX-REXM	00230838C	1	29-11-2017
Allen screw M4x16 ISO4762 A4-80	07130086	5	06-07-2017
Allen screw M4x10 ISO4762 A4-80	07130091	4	29-11-2017



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TITLE	DOCUMENT Nr	LEVEL	DATE
Allen screw M4x12 ISO4762 A4-80	07130094	3	17-05-2017
Allen screw M4x35 ISO4762 A4-80	07130097	4	17-05-2017
Ring Cable Shoe Yellow – M4	06300054	1	09-07-2013
Allen screw M4x10 ISO4762 A2-70	07130056	3	18-10-2012
Allen screw M4x12 ISO4762 A2-70	07130059	3	18-10-2012
Allen Screw M4x35 ISO4762 A2-70	07130063	3	18-10-2012
*Encoder type 2REXI, 2REX, REXM. M&k calculation Ex-dwg	00132087	3	14.06.2021
Washer $\varnothing 7/\varnothing 13/x1$	07150039	1	29-09-2009
Certification drawing – Rotary-Shaft Seal	00230847C	1	18-01-2018
Certification drawing – O-ring Ex dwg	00230849C	1	16-01-2018
*PCB SSI	00241789	1	14-06-2021
*SC0241-1 SC50NA Magnetic Multiturn	00241814	3.0	16-09-2021
*REXM Ordering code Ex-dwg.	00141198	16	14.06.2021
*REXM marking label Ex-dwg.	00141199	6	14.06.2021
*Type REXM Installation Guide	00240841	2	14 June 2021

Note: An * is included before the title of documents that are new or revised.

Copies of the above listed documents are kept at Intertek Italia S.p.A. archive.

15. SPECIAL CONDITIONS FOR SAFE USE

- Minimize the risk from electrostatic discharge - clean only with a damp cloth.
- Temperature at the cable gland or branching point could exceed 70°C or 80°C respectively - suitably rated cable must be utilized.
- It is a condition of certification that the flamepaths have to comply with the manufacturers drawings and can only be repaired by the manufacturer.
- The fasteners used to secure enclosure body to end shields shall have a minimum yield stress of 450 MPa.
- For models without integral cable gland use only suitably certified Ex db I Mb cable glands, thread adaptors and blanking elements.
- When installed the enclosure must be protected from high risk impacts.



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- It is a condition of certification that precautions must be taken to avoid dust from forming layers on the encoder.

16. ESSENTIAL HEALTH AND SAFETY REQUIREMENTS

The relevant essential Health and Safety Requirements have been identified and assessed in Intertek 104705584CHE-001 dated 09 December 2021.

17. ROUTINE (FACTORY) TESTS

None.

18. DETAIL OF CERTIFICATE CHANGES

06 December 2019 (R.0):

- Original issue by Intertek Italia S.p.A. NB 2575 on transfer from Intertek Testing & Certification Ltd. (NB 0359) using the same issued original certificate number.

?? December 2021 (R.1):

- Update from EN 60079-0:2012+A11:2013 to EN IEC 60079-0:2018.
- Inclusion of battery on Absolute Encoder PCB.
- Removal of Group II and Group III marking from REXM certification.
- Minor drawing changes not compromising the ATEX certification.
- Addition of IP rating to product description.