UK-TYPE EXAMINATION
CERTIFICATE

Product or Protective Systems Intended for Use in Potentially Explosive Atmospheres

UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

1. **UK-Type Examination Certificate Number:** **ITS21UKEX0408X** **Issue 00**

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

3. **Manufacturer:** Scancon Encoders A/S

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

5. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

6. Intertek Testing and Certification Limited, Approved Body number 0359, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

   The examination and test results are recorded in the confidential report 104705584CHE-001 dated 09 December 2021.

7. 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 within item 14 of the Schedule.

8. If the sign “X” is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.

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

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

    

    I M2 Ex db I Mb

    -40°C ≤ Tamb ≤ +70 °C

Certification Officer: Paul Moss **Date:** 17 December 2021

SCHEDULE:

UK-Type Examination Certificate Number: ITS21UKEX0408X Issue 00

11. Description of Product 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

12. Report Number

Intertek Report: 104705584CHE-001 dated 09 December 2021.

13. Special Conditions of Certification

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

(b). Conditions of Manufacture - Routine Tests

- None.

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek Report: 104705584CHE-001 dated 09 December 2021.

SCHEDULE:

UK-Type Examination Certificate Number: ITS21UKEX0408X Issue 00

15. Drawings and Documents

Title:	Drawing No.:	Rev. 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
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 Ø7/Ø13/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