



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEX ITS 10.0015X** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 3 [Issue 2 \(2018-03-22\)](#)  
Date of Issue: 2021-12-17 [Issue 1 \(2015-03-26\)](#)  
Applicant: **Scancon** [Issue 0 \(2012-12-06\)](#)  
Huginsvej 8  
3400 Hillerød  
Denmark  
Equipment: **Incremental and Absolute Encoder Type 2REX**  
Optional accessory:  
Type of Protection: **Flameproof enclosure 'db' and Dust 'tb'**  
Marking: IECEx ITS 10.0015X  
Ex db IIC T5 Gb  
Ex tb IIIC T100°C Db  
-40°C ≤ Tamb ≤ +70°C

Approved for issue on behalf of the IECEx  
Certification Body:

**P Moss**

Position:

**Certification officer**

Signature:  
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**Intertek Testing & Certification Limited**  
**ITS House, Cleeve Road**  
**Leatherhead**  
**Surrey, KT22 7SA**  
**United Kingdom**

**intertek**



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Manufacturer: **Scancon**  
Huginsvej 8  
3400 Hillerød  
Denmark

Additional  
manufacturing  
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

## STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-1:2014-06](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

## TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[GB/ITS/ExTR10.0008/00](#)  
[GB/ITS/ExTR15.0002/00](#)

[GB/ITS/ExTR10.0008/01](#)

[GB/ITS/ExTR10.0008/02](#)

Quality Assessment Report:

[GB/EXV/QAR17.0015/03](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The Encoder Type 2REX is a small cylindrical unit (68mm in diameter with length dependent on model) containing low voltage electronic components. The enclosure is manufactured from either aluminium, 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

## **SPECIFIC CONDITIONS OF USE: YES as shown below:**

1. Minimize the risk from electrostatic discharge - clean only with a damp cloth.
2. Temperature at the cable gland or branching point could exceed 70°C or 80°C respectively - suitably rated cable must be utilized.
3. It is a condition of certification that the flamepaths have to comply with the manufacturers drawings and can only be repaired by the manufacturer.
4. The fasteners used to secure enclosure body to end shields have a minimum yield stress of 450 Mpa.
5. For models without integral cable gland use only suitably certified Ex db IIC Gb and Ex tb IIIC Db cable glands, thread adaptors and blanking elements.
6. It is a condition of certification that precautions must be taken to avoid dust from forming layers on the encoder.



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## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

### Issue 1:

Change of address from "Tranevang 1, 3450 Allerød, Denmark" to "Huginsvej 8, DK-3400, Hillerød, Denmark". No other changes.

### Issue 2:

1. Inclusion of new type of rotary seal.
2. Inclusion of alternative type of O-ring.
3. Update of IEC 60079-1 from Ed. 6 to Ed. 7.
4. Update of IEC 60079-31 from Ed. 1 to Ed. 2.
5. Change of QAN/QAR Issuer.
6. Minor drawing changes not compromising the IECEx certification.

### Issue 3:

1. Update from IEC 60079-0:2011 Ed 6 to IEC 60079-0:2017 Ed 7.
2. Inclusion of battery on Absolute Encoder PCB.
3. Minor drawing changes not compromising the IECEx certification.
4. Addition of IP rating to product description.

### **Annex:**

[IECEX ITS 10.0015X Iss 3 - Annex for IECEx Certificate of Conformity.pdf](#)



# Annex to IECEx Certificate of Conformity

<b>Certificate No:</b>	<b>IECEX ITS 10.0015X</b>	<b>Issue No. 3</b>
<b>Annex No. 1</b>		

<b>Technical Documents</b>			
<b>Title:</b>	<b>Drawing No.:</b>	<b>Rev. Level:</b>	<b>Date:</b>
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
*2REX ordering code Ex-dwg.	00141621	12	14.06.2021
*2REX marking label Ex-dwg.	00141622	6	14.06.2021
*Type 2REX Installation Guide	00142574	6	14 June 2021

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

Certificate issued by:  
  
 Total Quality. Assured.

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