



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx ITS 15.0035X

Issue No: 1

Certificate history:

Issue No. 1 (2018-10-19)

Issue No. 0 (2015-11-23)

Status: **Current**

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Date of Issue: **2018-10-19**

Applicant: **Scancon Encoders A/S**  
Huginsvej 8,  
3400 Hilleroed  
**Denmark**

Equipment: **Incremental & Absolute Encoder Type 2QEX**

*Optional accessory:*

Type of Protection: **Non-sparking "nA" and Protection by enclosure "tc"**

Marking:

Ex nA IIC T4 Gc  
Ex tc III C Tmax100°C Dc  
-40°C to +70°C\*

\*upper ambient of encoders fitted with Rota connector restricted to a maximum of +60°C

IECEX ITS 15.0035X

*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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

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





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Manufacturer: **Scancon Encoders A/S**  
Huginsvej 8,  
3400 Hillerød  
**Denmark**

Additional Manufacturing location(s):

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 apparatus 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 60079-15 : 2010** Explosive atmospheres - Part 15: Equipment protection by type of protection "n"  
Edition:4

**IEC 60079-31 : 2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

*This Certificate **does not** indicate compliance with electrical 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 Report:

[GB/ITS/ExTR15.0042/00](#) [GB/ITS/ExTR15.0042/01](#)

Quality Assessment Report:

[GB/EXV/QAR17.0015/01](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The Incremental & Absolute Encoder type 2QEX is a small aluminium enclosure containing electronics and a shaft. The shaft is designed with 2 precision ball bearings and can be provided in a solid shaft type or a hollow shaft type. All external connections are provided through one connector (MIL style or IECEx approved as per IECEx BAS 09.0011X) or a single threaded entry and approved cable gland. The enclosure measures approximately 62mm x 90mm x 70mm.

Additionally the equipment has been found to meet IP64/65/66/67 in accordance with IEC 60529.

### Routine tests

A dielectric strength test shall be carried out in accordance with clause 23.2.1 of IEC 60079-15:2010 between the live/neutral supply pins and earth. Test voltage 500V r.m.s. (+5%,-0%) Test duration minimum of 60 seconds. Alternatively, the test shall be carried out at 1.2 times the above test voltage but shall be maintained for at least 100ms. The use of a d.c. test voltage is allowed as an alternative to the specified a.c. test voltage and shall be at 140 % of the specified a.c. r.m.s test.

Details of test must be recorded and records maintained.

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

- Temperature at the cable gland or branching point could exceed 90°C - suitably rated cable must be utilized.
- When fitted connectors must have their dust covers immediately put fully back in position when the connectors are not in use.
- Potential electrostatic charging hazard – see instructions.



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

### Issue 1:

1. Inclusion of new type of rotary seal.
2. Inclusion of alternative type of O-ring.
3. Inclusion of Absolute Encoder version.
4. Update from IEC 60079-0:2011 Ed 6 to IEC 60079-0:2017 Ed 7.
5. Change of QAN/QAR issuer.
6. Minor drawing changes not compromising the IECEx certification.

### **Annex:**

[Annex to IECEx ITS 5.0035X Issue 1.pdf](#)



## Annex to IECEx Certificate of Conformity

Certificate No:	IECEx ITS 15.0035X	Issue No. 1
Annex No. 1		

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
*2QEX Internal/external earthing	00133121	4	08-10-2018
*Certification drawing – housing 2QEX Ex dwg	00133136C	3	20-04-2018
*2QEX Marking Label Ex-dwg.	00143119	3	20.04.2018
*Type 2QEX Installation Guide	00143123	3	20 April 2018
*Warning Label 2QEX	00143126	3	12-10-2018
*2QEX ordering code Ex-dwg.	00143139	3	20.04.2018
*Certification drawing – 2QEX Cap with MIL connector Ex dwg	00230124C	4	20-04-2018
*Certification drawing – 2QEX Cap with cable gland Ex dwg	00230141C	4	20-04-2018
*Certification drawing – 2QEX Cap with connector Ex dwg	00230142C	4	20-04-2018
*Certification drawing 2QEX – shaft Ex dwg	00230250C	2	20-04-2018
*Certification drawing – Rotary-Shaft Seal	00230847C	1	18-01-2018
*Certification drawing – O-ring Ex dwg	00230849C	1	16-01-2018
*2QEX with Rota connector Marking Label Ex-dwg.	00240088	3	20.04.2018
*PCB SC0241 component and layout details – Absolute SSI encoder 2QEX.	00240976	1	04-10-2018
*PCB SC0803 component and layout details – Incremental encoder 2QEX.	00240977	1	04-10-2018

Certificate issued by:

**intertek**

Total Quality. Assured.

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