



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

Certificate No.: **IECEX QPS 19.0003X** Page 1 of 5 [Certificate history:](#)
Issue 0 (2019-05-08)

Status: **Current** Issue No: 1

Date of Issue: 2025-01-23

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

Equipment: **Shaft and Hollow-Shaft Absolute Encoder**

Optional accessory:

Type of Protection: **"d" "t"**

Marking: Ex db IIC T5 Gb
Ex tb IIIC T100°C Db
Tamb= -40°C to +70°C
IECEX QPS 19.0003X
9-30 Vdc; < 1.2 W; 3000 rpm max.

Approved for issue on behalf of the IECEx
Certification Body:

D. Adams, P. Eng.

Position:

Manager, Ex (Hazardous Locations) Department

Signature:
(for printed version)

Date:
(for printed version)

February 12, 2025

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 or use of this QR Code.



Certificate issued by:

QPS
Evaluation Services Inc.
81 Kelfield St
Unit 8
Toronto, Ontario M9W 5A3
Canada





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

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](#) 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:

[CA/QPS/ExTR19.0004/00](#)

[CA/QPS/ExTR19.0004/01](#)

Quality Assessment Report:

[GB/EXV/QAR17.0015/07](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Absolute Encoder types SCA88EX, SCH88BEX and SCH88FEX are small encoders manufactured from stainless steel or aluminium available in a "U" shape with approximate dimensions of 134mm x 75mm x 90mm. These encoders are populated with electronics and have a shaft passing through the main body. The shaft may be solid or hollow and with one or two ends free. The encoder contains a backup battery: primary lithium battery of type XENO XL-050H (lithium thionyl chloride – Li-SOCI₂), size ½ AA 3.6V nominal. The battery is not supposed to be replaced in a lifetime of the encoder.

Rotation Speed of the encoder shaft is limited to 3000 rpm.

The encoder designations detail:

SC*88*Ex - *** - **** - ** - ** - ** - ** - ** - **** - *
A J B C D E F G H I

A..... The Type of Encoder;

SCA88EX – Solid Shaft

SCH88BEX – Through Hollow Shaft

SCH88FEX – Hollow Shaft

J..... Type of Encoder (Optional)

(2PB, 1SS, 1CA, 1DV, 1EE, 1TE, etc.)

B..... Pulse/revolutions (e.g. 1213)

C..... Material of Housing and Body

AISI 303 (SR)

AISI 316 (SA)

EN AW-6026 (AL)

EN AW-6026LF (AL)

D.... Output Signal (e.g. DP,G and B)

E.... Diameter of Hollow Shaft (e.g. 03)

F.... Length of Shaft or Max Depth of Hollow Shaft (e.g. 00)

G.... IP Rating (e.g. 66)

H.... Type and Placement of Cable Outlet (e.g. EC02)

I..... Type of Flange Body (e.g. A)

SPECIFIC CONDITIONS OF USE: YES as shown below:

- No modifications may be made to the flamepaths of the enclosure without consultation to the manufacturer's drawings.
- No user replaceable items inside – including internal backup battery.
- Use only fasteners with property class A4-80 with a yield stress \geq 600 MPa.
- Use only suitably certified Ex d/db and/or Ex tb cable glands, blanking elements, and thread adapters.
- To minimize the risk from electrostatic discharge – clean only with a damp cloth.
- It is a condition of certification that the precautions must be taken to avoid dust from forming layers on the encoder.
- Temperatures at the cable entry can reach 90°C. Selection of cable and cable entry devices must be appropriate for the ambient temperature range in which the product is used.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

1. New enclosure layout
2. Alternate battery XENO XL-050H was added
3. The current limiting resistor was raised from 105 Ω to 120 Ω
4. New blind holes were added in the housing and cap
5. Drawing updates
6. clarification of encoder types
7. clarification of output signal types