



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

Certificate No.: IECEx TRC 12.0009X Issue No: 1 Certificate history:
Status: **Current** Page 1 of 4 Issue No. 1 (2015-08-05)
Date of Issue: **2015-08-05** Issue No. 0 (2012-06-25)

Applicant: **Nidec Avtron Automation Corporation**
8901 East Pleasant Valley Road,
Independence,
Ohio 44131
United States of America

Electrical Apparatus: **Ex Encoders (as listed within the annex to this certificate)**
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking:
Ex ic IIC* T4 Gc T_{amb} -40..-20°C to +80°C
Ex ic IIIC T200°C Dc T_{amb} -40..-20°C to +80°C
* refer to table in Annex.

Approved for issue on behalf of the IECEx
Certification Body:

S P Winsor

Position:

Certification Manager

Signature:
(for printed version)

Date:

2015-08-05

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:

TRaC Global Ltd.
Unit 1 Pendle Place
Skelmersdale
West Lancashire
WN8 9PN
United Kingdom





IECEX Certificate of Conformity

Certificate No: IECEx TRC 12.0009X Issue No: 1

Date of Issue: 2015-08-05 Page 2 of 4

Manufacturer: **Nidec Avtron Automation Corporation**
8901 East Pleasant Valley Road,
Independence,
Ohio 44131
United States of America

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 electrical 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 : 2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

*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/TRC/ExTR12.0001/00](#) [GB/TRC/ExTR12.0001/01](#)

Quality Assessment Report:

[US/UL/QAR12.0002/03](#)



IECEX Certificate of Conformity

Certificate No: IECEx TRC 12.0009X

Issue No: 1

Date of Issue: 2015-08-05

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Encoder Overview

The encoders are made from a selection of 5 simple board combinations depending on the application. See annex for model numbers covered by this certificate. The boards are potted into a solid block and mounted in metal cases.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The external power supply shall be SELV (or equivalent) or additional suitable safe area limiting devices shall be included post supply (i.e. fuses) such that the maximum input parameters (U_i and I_i) of the encoder are not exceeded under normal operation.
2. The i.c. encoders require the safe area power supply to be limited to the levels listed on this certificate and cable must be selected and installed in accordance with IEC 60079-14 and IEC 60079-25.
3. The equipment should be mounted so as to avoid electrostatic charging.



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Certificate No: IECEx TRC 12.0009X

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Date of Issue: 2015-08-05

Page 4 of 4

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

Issue 1

Company name change from Avtron Industrial Automation to Nidec Avtron Automation Corporation, Addition Encoder models XR THINLINE XR56S and XR SMARTach XR97. Update to latest standard to IEC 60079-0 Ed 6.0

Annex:

[Annex to IECEx TRC 12.0009X is 1.pdf](#)