



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 TRC 14.0005X**

Page 1 of 5

Certificate history:

Status: **Current**

Issue No: 3

[Issue 2 \(2022-04-19\)](#)

[Issue 1 \(2020-01-17\)](#)

[Issue 0 \(2014-06-19\)](#)

Date of Issue: 2026-09-09

Applicant: **Nidec Conversion**
243 Tuxedo Avenue
Brooklyn Heights, OH 44131
United States of America

Equipment: **Flameproof Encoder Model M6C series**

Optional accessory:

Type of Protection: **Flameproof 'db' , Increased Safety 'eb'**

Marking: Ex db eb IIB T4 Gb $T_{amb} = -40/-20^{\circ}\text{C}$ to $+80^{\circ}\text{C}$

Approved for issue on behalf of the IECEx
Certification Body:

Simon Barrowcliff

Position:

Senior Technical Specialist

Signature:
(for printed version)

Date:
(for printed version)

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:

Element Materials Technology
Unit 1 Pendle Place
Skelmersdale
West Lancashire





IECEx Certificate of Conformity

Certificate No.: **IECEx TRC 14.0005X**

Page 2 of 5

Date of issue: 2026-09-09

Issue No: 3

Manufacturer: **Nidec Conversion**
243 Tuxedo Avenue
Brooklyn Heights, OH 44131
United States of America

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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-1:2007 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:6

IEC 60079-7:2006 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:4

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/TRC/ExTR14.0005/00
GB/TRC/ExTR14.0005/03

GB/TRC/ExTR14.0005/01

GB/TRC/ExTR14.0005/02

Quality Assessment Report:

US/UL/QAR12.0002/11



IECEx Certificate of Conformity

Certificate No.: **IECEx TRC 14.0005X**

Page 3 of 5

Date of issue: 2026-09-09

Issue No: 3

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The M6 range of encoders are rotary speed and position transducers. The output from the units is directly proportional to shaft position (pulse count) or speed (pulse rate). The encoder is designed to be used for both control and instrumentation applications and is powered by a DC supply not exceeding 24 Volts. The device consists of a cast aluminium flameproof enclosure and up to two increased safety terminal housings, separated by cemented seals. The flameproof enclosure is secured by 12 M4 x 0.7 cap screws with a tensile strength of 1220 N/mm² (property class 12.9) with a torque of 2.82 N-m.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Contact the manufacturer for information on the dimensions of the flameproof joints.



IECEx Certificate of Conformity

Certificate No.: **IECEx TRC 14.0005X**

Page 4 of 5

Date of issue: 2026-09-09

Issue No: 3

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Company name change, label correction to CE mark font and replacement instructions drawing.

Issue 2: Address change. Marking updated with the alternative protection concepts db, eb.

Issue 3: Manufacturer name change, new material, fabrication method and internal construction for Ex db protected parts. Additional preapproved parts. Markings updated to remove UKEX and update Ex code (Ex db eb). Modification to Specific Conditions of Use listed.



IECEx Certificate of Conformity

Certificate No.: **IECEx TRC 14.0005X**

Page 5 of 5

Date of issue: 2026-09-09

Issue No: 3

Additional information:

The list of controlled technical documentation is given in TRA-065540-00-SDL, dated 2026-08-26.

Routine Test:

An electrical strength test of 500 V rms shall be applied between the terminals and chassis in accordance with clause 7.1 of IEC 60079-7.

M6C PART NUMBERS AND AVAILABLE OPTIONS

Model	Bore Size	Mounting Style	Line Driver	Left & Right Output Range	Base PPR	Marker	Connector	Modifications
M6C-	0- Standard 4- 1" 5- 1 1/8"	S- End of Shaft	1- 5 to 24 VDC 2- 5 to 18 VDC 3- 12 to 24 VDC 8- 6.5 to 24 VDC	X- None L- Low Range (Base PPR x 1/2) M- Medium Range (Base PPR x 1) H- High Range (Base PPR x 2)	48- 480 51- 512 60- 600	Z- Marker - - None	T- Conduit Box, Terminal Block 3/4" NPT W- Conduit Box, Terminal Block and Wire Gland	000- None 001- Low Temp (-40 °C) 003- Torque Arm B28390 005- Low Temp (-40 °C) & Torque Arm