



# 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 TRC 14.0005X** Page 1 of 4 [Certificate history:](#)  
Issue 0 (2014-06-19)

Status: **Current** Issue No: 1

Date of Issue: 2020-01-17

Applicant: **Nidec Industrial Solutions**  
8901 East Pleasant Valley Road  
Independence, OH 44131  
**United States of America**

Equipment: **Flameproof Encoder Model M6C series**

Optional accessory:

Type of Protection: **Flameproof, Increased Safety**

Marking: **Ex d e 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:

**General Manager**

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:

**Element Materials Technology**  
Unit 1 Pendle Place  
Skelmersdale  
West Lancashire





# IECEX Certificate of Conformity

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Date of issue: 2020-01-17

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Manufacturer: **Nidec Industrial Solutions**  
8901 East Pleasant Valley Road  
Independence, OH 44131  
**United States of America**

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

**IEC 60079-1:2007-04** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:6

**IEC 60079-7:2006-07** 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/ExTR14.0005/01](#)

Quality Assessment Report:

[US/UL/QAR12.0002/06](#)



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## **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 24Volts. 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/mm<sup>2</sup> (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.



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

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

**Annex:**

[Annex to IECEx TRC 14.0005X issue 1.pdf](#)



**Element Materials Technology,**  
Unit 1, Pendle Place,  
Skelmersdale,  
West Lancashire, WN8 9PN,  
United Kingdom

**Annex to IECEx Certificate of Conformity**

**IECEx TRC 14.0005X issue No.: 1**

<b>Table of entity parameters</b>

<b>“Special conditions for manufacture”</b>
1. The products covered by this certificate incorporate previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices and to ensure the correct instruction documents/information is provided to the end user.



<b>Routine Tests</b>
1. 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.

<b>Manufacturer's Documents</b>			
Title:	Drawing No.:	Rev. Level:	Date:
M6C Explosion-Proof Pulse Encoder (3 Sheets)	D52332	B	2020-01-16
M6C Certification Drawing User Instructions	B38053	-	2019-10-04



Attention is drawn to the operating and installation instructions which may contain useful information in relation to conditions of use.