



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 IMQ 19.0013X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 1 Issue 0 (2020-03-30)
Date of Issue: 2020-11-10
Applicant: **GM International S.R.L.**
Via G. Mameli 53/55
20852 Villasanta (MB)
Italy
Equipment: **Termination board**
Optional accessory: Serie TBE-D5008-TRI-*** and TBE-D5016-TRI-***
Type of Protection: **Increased safety Ex ec**
Marking: Ex ec IIC T4 Gc

Approved for issue on behalf of the IECEx
Certification Body:

Mr. Mauro CASARI

Position:

IMQ ExCB Manager

Signature:
(for printed version)

Date:

2020-11-25

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2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

Istituto Italiano del Marchio di Qualità S.p.A
Via Quintiliano 43
20138 Milano
Italy





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Date of issue: 2020-11-10

Issue No: 1

Manufacturer: **GM International S.R.L.**
Via G. Mameli 53/55
20852 Villasanta (MB)
Italy

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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-7:2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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 Report:

[IT/IMQ/ExTR19.0017/01](#)

Quality Assessment Report:

[NO/DNV/QAR07.0005/09](#)



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Issue No: 1

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

TBE-D5008-TRI-*** and **TBE-D5016-TRI-***** termination boards are non-sparking, non-incendive electrical apparatus, designed as a 8 (TBE-D5008-TRI-***) or 16 (TBE-D5016-TRI-***) slot board ready to house up to 8 or 16 modules from D5000 or D6000 series, which are able to interface field devices that may be located in potentially explosive atmospheres with measuring and process control equipment located in non-explosive atmospheres, through customer dedicated connector. Housed modules are kept in place by plastic latching mechanism that mechanically secures each module to the board. It is suitable for installation on TH 35 DIN Rail according to EN/IEC 60715.

This Equipment is an electronic PWB equipment, with connectors and terminals to plug / connect associated apparatus and which will be housed into an Ex Enclosure already certified. The Equipment has been evaluated applying the Annex H of IEC 60079-7 and include the pertinent Special Condition of Safe Use.

Transient protection has been provided on the PWB and it is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment.

Ratings: U_n 24 Vdc (20÷30Vdc)

Rated ambient temperature range: -40 ÷ 70°C

Further details and list of models in Annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.
- The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

IECEx IMQ 19.0013X Issue 1

Addition to Certificate of new termination boards other than TBE-D5016-TRI-007 already approved in Issue 0. All models are listed in Annex. The extension to a wider range of board, customized according the electronic modules which are expected to house (analog, digital, single or double channels), the main connector to the control side area (system side).

Besides the TBE-D5016-TRI-007 is aligned as construction to the additional new models of board (terminals, clearances and creepage).

Annex:

[IECEx IMQ 19.0013X issue No. 1 Annex.pdf](#)

General description

TBE-D5008-TRI-*** and TBE-D5016-TRI-*** termination boards are non-sparking, non-incendive electrical apparatus, designed as a 8 (TBE-D5008-TRI-***) or 16 (TBE-D5016-TRI-***) slot board ready to house up to 8 or 16 modules from D5000 or D6000 series, which are able to interface field devices that may be located in potentially explosive atmospheres with measuring and process control equipment located in non-explosive atmospheres, through customer dedicated connector. Housed modules are kept in place by plastic latching mechanism that mechanically secures each module to the board. It is suitable for installation on TH 35 DIN Rail according to EN/IEC 60715.

Different boards with the same configuration are dedicated to different system cards.

TBE-D5008-TRI-*** and TBE-D5016-TRI-*** termination boards can be located in non-explosive atmospheres or potentially explosive gas atmospheres.

Electrical connections are accommodated by plug-in removable terminal block and with customer dedicated connector.

Supply is 24 Vdc nominal (20 to 30 Vdc range), maximum power consumption according to mounted modules. Safety temperature limits are -40 to +70 °C.

This Equipment is an electronic PWB equipment, with connectors and terminals to plug / connect associated apparatus and which will be housed into an Ex Enclosure already certified. The Equipment has been evaluated applying the Annex H of IEC 60079-7 and include the pertinent Special Condition of Safe Use.

Transient protection has been provided on the PWB and it is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment..

Models

TBE-D5008-TRI-001	single termination board with 8 positions, up to 8 channels, for AO modules, with HART® connector
TBE-D5016-TRI-001	single termination board with 16 positions, up to 32 channels, for AI modules, with HART® connector
TBE-D5016-TRI-002	double termination board with 32 positions, up to 32 channels, for AI modules, with HART® connector
TBE-D5016-TRI-003	single termination board with 16 positions, up to 32 channels, for AI modules, with HART® connector
TBE-D5016-TRI-004	single termination board with 16 positions, up to 32 channels, for DI modules, without HART® connector
TBE-D5016-TRI-005	double termination board with 32 positions, up to 32 channels, for DI modules, without HART® connector
TBE-D5016-TRI-006	single termination board with 16 positions, up to 32 channels, for DI modules, without HART® connector
TBE-D5016-TRI-007	single termination board with 16 positions, up to 16 channels, for DO modules, without HART® connector
TBE-D5016-TRI-008	single termination board with 16 positions, up to 32 channels, for AI modules, with HART® connector
TBE-D5016-TRI-009	single termination board with 16 positions, up to 32 channels, for DO modules, without HART® connector
TBE-D5016-TRI-011	single termination board with 16 positions, up to 32 channels, for AI modules, with HART® connector
TBE-D5016-TRI-012	single termination board with 16 positions, up to 32 channels, for DI modules, without HART® connector

Annex to: IECEx IMQ 19.0013X issue No. 1
Applicant: GM International S.r.l.
Apparatus: Termination Board
Series TBE-D5008-TRI-*** and TBE-D5016-TRI-***



Specific conditions of Use:

- The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.
- The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0.