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 BVS 18.0066X**	Page 1 of 5	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2019-04-11) Issue 0 (2018-10-22)
Date of Issue:	2021-03-15		

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

Equipment: **Termination Boards type TB-D5008-INV-005, TB*-D5016-TRI-010, Dummy Pass-Through Module typeD6001*, D6001*-xxx, D6002*, D6002*-xxx; Relay Output Module D5099*, D5099*-xxx, D6003*, D6003*-xxx**

Optional accessory:

Type of Protection: **Protection by increased safety "e"; Protection by type of protection "n"**

Marking: Ex ec nC IIC T4 Gc Type D5099* and D6003*

Ex ec IIC T4 Gc other types

Approved for issue on behalf of the IECEx Certification Body: **Jörg Koch**

Position: **Head of Certification Body**

Signature: (for printed version)

Date: 15.3.2021

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:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA
On the safe side.

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Manufacturer: **G.M. 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 60079-15:2017 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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:

DE/BVS/ExTR18.0073/02

Quality Assessment Report:

NO/DNV/QAR07.0005/09

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Description

See Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:
Installation in areas requiring EPL Gc equipment

- The Termination Board fitted with electronic modules shall be mounted on a metallic DIN-rail located in a controlled environment providing pollution degree 2 (or better) according to IEC 60664-1.

and

- In an enclosure, which complies with EPL Gc requirements according to IEC 60079-0 / IEC 60079-7 and provides degree of IP protection IP54 according to IEC 60529, unless the equipment is intended to be afforded an equivalent degree of protection by location.

and

- Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment.

Termination Board, only fitted with electronic modules designed as associated apparatus:

Only electronic modules providing terminals for intrinsically safe circuits on the same side of module housings shall be used. Connection or disconnection of energized non-intrinsically safe circuits is only permitted in the absence of a potentially explosive atmosphere.

Termination Board, fitted with electronic modules designed as associated apparatus:

Only electronic modules providing terminals for intrinsically safe circuits on the same side of module

housings shall be used.

Termination Board, fitted with electronic modules providing only terminals for non-IS circuits:

None

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Equipment (continued):

Type Code

Termination Board:

Type TB-D5008-INV-005 and TB*-D5016-TRI-010

Pass-Through Module:

Type D6001* / D6001*-xxx (*: S = single channel, D = double channel)

Type D6002* / D6002*-xxx (*: S = single channel)

Relay Output Modules:

Type D5099* / D5099*-xxx (*: S = single channel)

Type D6003* / D6003*-xxx (*: S = single channel)

Option "xxx" = non Ex-relevant details of construction or function.

Listing of all components used referring to older standards:

See Annex

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
TB-D5016-TRI-010:

- Increased distance between modules
- Power supply terminal blocks replaced by the corresponding models with screw latching
- Clips for DIN rail replaced
- An optional type designation „TBE-D5016-TRI-010" is added.

TB-D5008-INV-005:

- Earth connector replaced
- Terminal blocks toward field for connection of loop cable shields added

Annex:

BVS_18_0066X_GM International_Annex2.pdf

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Annex

Description

Termination Board Type TB-D5008-INV-005 and Type TB*-D5016-TRI-010:

The Termination Boards are designed as a rack that can be plugged onto 35 mm DIN mounting rails and consists of a backplane PCB with metal retaining clips for DIN rail mounting and guide / fastening elements for electronic modules plugged into the rack. The Termination Boards are designed in the type of protection increased safety "ec".

The backplane PCB, which carries only non-intrinsically safe circuits, is equipped with backplane connectors for electronic modules, terminals for redundant, external 24 V power supply, a connector for the remote control / data interface and electronic components.

The electronic modules that can be plugged into the rack are subject to other test protocols, except for the modules included here.

The Termination Boards can be equipped with up to 8 (type TB-D5008-INV-005) or 16 (type TB*-D5016-TRI-010) electronic modules of the type series D5xxx, designed as associated apparatus according to EN 60079-11, exclusively-or with electronic modules of the type series D5xxx or D6xxx with exclusively non-intrinsically safe circuits.

If electronic modules with intrinsically safe circuits are plugged into the rack, the U_m values defined in the certificates of the electronic modules apply to the external, non-intrinsically safe circuits of the Termination Boards type TB-D5008-INV-005 or type TB*-D5016-TRI-010.

The Termination Boards are intended for installation in the safe area or in areas requiring EPL Gc equipment.

When installed in the EPL Gc area, only electronic modules suitable for use in the EPL Gc area may be plugged in.

The rack can also be equipped with Pass-Through Modules type D6001*, D6001*-xxx, D6002S, D6002S-xxx, and/or Relay Output Modules type D5099S, D5099S-xxx, D6003S, D6003S-xxx.

Pass-Through Modules type D6001*, D6001*-xxx / type D6002S, D6002S-xxx :

The Pass-Through Modules type D6001*, D6001*-xxx consist of a pluggable plastic module housing containing a printed circuit board equipped with overvoltage / overcurrent protection components, backplane connectors and terminals for non-intrinsically safe, single-channel or dual-channel current loop connection.

The dummy Pass-Through Modules type D6002S, D6002S-xxx consist of a plastic plug-in module housing containing a printed circuit board equipped with backplane connectors and terminals for single-channel loop connection.

All connection modules are designed in the type of protection increased safety "ec".

The loop connection is intended for non-intrinsically safe field and control-side circuits.

Relay Output Modules type D5099S, D5099S-xxx / type D6003S, D6003S-xxx :

The Relay Output Modules consist of a plastic plug-in module housing containing a printed circuit board fitted with electronic components, backplane connectors and terminals for single-channel current loop connection.

The current loop connection is intended for non-intrinsically safe field and control-side circuits.

The Relay Output Modules are designed in the ignition protection type increased safety "ec", while the integrated relays are designed in the type of protection "nC". Relay Output Modules type D5099S, D5099S-xxx provide a free floating SPDT (Single Pole Double Through) relay contact.

Relay Output Modules type D6003S, D6003S-xxx provide an SPDT (Single Pole Double Through) relay contact energized by the DC 24 V power supply of the Termination Board.

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Listing of all components used referring to older standards:

Subject and type	IECEx TEST REPORT	Standards
Relays for PCB mounting	IT/IMQ/ExTR13.0011/01	IEC 60079-0:2011, 6th Edition [1] IEC 60079-15:2010, 4th Edition [1]
	UL Test Report File No. E222308	UL 60079-0, 6th Edition [1] UL 60079-15, 4th Edition [1]

[1] No applicable technical differences