



# 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 TUN 16.0005X** Page 1 of 4 [Certificate history:](#)  
Issue 0 (2016-04-07)

Status: **Current** Issue No: 1

Date of Issue: 2020-11-13

Applicant: **G.M. International S.r.l.**  
Via Mameli, 53-55  
20852 Villasanta (MB)  
**Italy**

Equipment: **Load Cell / Strain Gauge Bridge Isolating Repeater/Converter type D5263S; D5263S-xxx; D5264S and D5264S-xxx**

Optional accessory:

Type of Protection: **Equipment protection by Intrinsic Safety "i" and Equipment protection by increased safety „e“**

Marking: Ex ec [ia Ga] IIC T4 Gc or  
[Ex ia Da] IIIC or  
[Ex ia Ma] I

Approved for issue on behalf of the IECEx  
Certification Body:

**Thomas Heinen**

Position:

**Deputy Head of the IECEx Certification Body**

Signature:  
(for printed version)

Date:

\_\_\_\_\_  
\_\_\_\_\_

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**TÜV NORD CERT GmbH**  
**Hanover Office**  
**Am TÜV 1, 30519 Hannover**  
**Germany**





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Manufacturer: **G.M. International S.r.l.**  
Via 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 60079-11:2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

**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/TUN/ExTR16.0013/01](#)

Quality Assessment Report:

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



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

### Description:

The D5263S and D5264S modules are Associated Apparatus designed as single channel galvanic isolators to interface Intrinsically Safe apparatus field devices located in Hazardous Area with non-intrinsically safe measuring and process control equipment located in non-explosive atmosphere. They are packaged in a plastic enclosure suitable for installation on T35 DIN Rail according to EN/IEC60715, with or without Power Bus connector, or on Termination Board (only for D5264S) provided with customer dedicated connection, and located in non-explosive atmospheres or potentially explosive gas atmospheres.

Electrical connections are accommodated by plug-in removable terminal block or with customer dedicated connector when installed on Termination Board (only for D5264S). Supply voltage can optionally be fed through the Termination Board or by the Power Bus connector installed on DIN Rail.

The D5263S module (Strain Gauge Bridge Isolating Repeater) provides a fully floating supply voltage with remote sensing capability to a strain gauge located in potentially explosive atmosphere and repeats, with isolation, the mV signal output to drive a load or other measuring equipment located in non-explosive atmosphere. The unit typically acts as a transparent galvanic isolated interface installed between a weighting indicator and a load cell (or a group of up to 10 load cells).

The D5264S module (Load Cell/Strain Gauge Bridge Isolating Converter) provides a fully floating supply voltage with remote sensing capability to strain gauge located in potentially explosive atmosphere and converts the strain gauge mV signal to a totally floating (that is, isolated from input and supply) 0/4-20 mA analogue signal (providing both current source and sink capabilities) to drive a load or other measuring equipment located in non-explosive atmosphere. In addition, the unit provides an opto-coupled open collector transistor (photo-MOS) alarm output.

### Type code:

The following variants are covered by this certificate:

D5263S; D5263S-xxx; D5264S; D5264S-xxx

### Electrical Data:

See attachment to IECEx TUN 16.0005 X issue 01

### Thermal data:

Permissible range of ambient temperature:  $-40\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$

### SPECIFIC CONDITIONS OF USE: YES as shown below:

1. For the uses in areas that require EPL Gc the Load Cell / Strain Gauge Bridge Isolating Repeater/Converter type D5263S; D5263S-xxx; D5264S and D5264S-xxx has to be installed in a suitable housing according to IEC 60079-7 in such a way, that a degree of protection of at least IP 54 according to IEC 60529 is reached. The installation into the housing shall be carried out in such a way that the ambient temperature during the use is not exceeded.
2. The Load Cell / Strain Gauge Bridge Isolating Repeater/Converter type D5263S; D5263S-xxx; D5264S and D5264S-xxx has to be erected in such a way that a pollution degree 2 or less, according to IEC 60664-1, is achieved.
3. The connecting and disconnecting of the non-intrinsically safe circuits is only permitted if no explosive atmosphere exists.



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

See attachment to IECEx TUN 16.0005X issue 01

**Annex:**

[IECEx TUN 16.0005X issue 01.pdf](#)

**General product information:**

**Description of product:**

The D5263S and D5264S modules are Associated Apparatus designed as single channel galvanic isolators to interface Intrinsically Safe apparatus field devices located in Hazardous Area with non-intrinsically safe measuring and process control equipment located in non-explosive atmosphere. They are packaged in a plastic enclosure suitable for installation on T35 DIN Rail according to EN/IEC60715, with or without Power Bus connector, or on Termination Board (only for D5264S) provided with customer dedicated connection, and located in non-explosive atmospheres or potentially explosive gas atmospheres.

Electrical connections are accommodated by plug-in removable terminal block or with customer dedicated connector when installed on Termination Board (only for D5264S). Supply voltage can optionally be fed through the Termination Board or by the Power Bus connector installed on DIN Rail.

The D5263S module (Strain Gauge Bridge Isolating Repeater) provides a fully floating supply voltage with remote sensing capability to a strain gauge located in potentially explosive atmosphere and repeats, with isolation, the mV signal output to drive a load or other measuring equipment located in non-explosive atmosphere. The unit typically acts as a transparent galvanic isolated interface installed between a weighting indicator and a load cell (or a group of up to 10 load cells).

The D5264S module (Load Cell/Strain Gauge Bridge Isolating Converter) provides a fully floating supply voltage with remote sensing capability to strain gauge located in potentially explosive atmosphere and converts the strain gauge mV signal to a totally floating (that is, isolated from input and supply) 0/4-20 mA analogue signal (providing both current source and sink capabilities) to drive a load or other measuring equipment located in non-explosive atmosphere. In addition, the unit provides an opto-coupled open collector transistor (photo-MOS) alarm output.

**Type code:**

The following variants are covered by this certificate:

D5263S; D5263S-xxx

D5264S; D5264S-xxx

**Electrical data:**

**Safe area connections at terminal block**

**Power Supply**

Power supply  
(Terminals : 9 (+) and 10 (-))

For connection to a non-intrinsically safe circuit with following values:

Rated Voltage  $U_n = 24 \text{ V d.c}$  (18 V d.c to 30 V d.c)  
Maximum Voltage  $U_m = 250 \text{ V rms}$

**Output**

Weighting indicator  
(Terminals for D5263S: 1 (Ch1 EXC+) and 4 (Ch1 EXC-), 2 (Ch1 Sense+) and 3 (Ch1 Sense-), 5 (Ch1 IN+) and 6 (Ch1 IN-))  
(Terminals for D5264S: 1 and 2 (output), 3+ and 4- (Alarm out), 11 A- and 12 B+ (Modbus))

For connection to a non-intrinsically safe circuit with a safety maximum voltage:

Rated Voltage  $4 \text{ V} \leq U_n \leq 15 \text{ V d.c}$   
Maximum Voltage  $U_m = 250 \text{ V rms}$

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**Hazardous area connections at terminal block**

Load cell  
(Terminal: 13 (Ch1 EXC+) and 16 (Ch1 EXC-)  
14 (Ch1 Sense+) and 15 (Ch1 Sense-) 17  
(Ch1 IN+) and 18 (Ch1 IN-))

In type of Protection Intrinsic Safety Ex ia  
I/IIA/IIB/IIC/IIIC with following maximum values:

$U_o = 7.2 \text{ V}$   
 $I_o = 177 \text{ mA}$   
 $P_o = 471 \text{ mW}$   
Characteristic line: trapezoidal  
 $R = 60 \text{ } \Omega$   
1.1  $\mu\text{F}$   
Negligibly small

Effective internal capacitance  $C_i$   
Effective internal inductance  $L_i$

The maximum permissible values for the external inductance  $L_o$  and the external capacitance  $C_o$  have to be taken from the following table:

Ex ia IIC	$L_o$ [mH]	0.5	0.2	0.05	0.01	0.002
	$C_o$ [ $\mu\text{F}$ ]	0.5	1.3	2.8	6.1	12.4

Ex ia IIB/IIIC	$L_o$ [mH]	8.7	5	0.5	0.2	0.002
	$C_o$ [ $\mu\text{F}$ ]	2.6	4.8	13.9	18.9	238.9

Ex ia IIA	$L_o$ [mH]	16	10	5	0.2	0.005
	$C_o$ [ $\mu\text{F}$ ]	11.9	15.9	22.9	72.9	998.9

Ex ia I	$L_o$ [mH]	29	20	10	0.2	0.005
	$C_o$ [ $\mu\text{F}$ ]	10.9	14.9	22.9	94.9	998.9

**Thermal data:**

Ambient temperature range:  $-40 \text{ }^\circ\text{C} \leq T_a \leq +70 \text{ }^\circ\text{C}$

**Details of Change:**

Listed in the IECEx TEST REPORT COVER having DE/TUN/ExTR16.0013/01 and ExTR Free Reference Number 20 217 79028 issued on 2020-11-02

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**Specific Conditions of Use**

1. For the uses in areas that require EPL Gc the Load Cell / Strain Gauge Bridge Isolating Repeater/Converter type D5263S; D5263S-xxx; D5264S and D5264S-xxx has to be installed in a suitable housing according to IEC 60079-7 in such a way, that a degree of protection of at least IP 54 according to IEC 60529 is reached. The installation into the housing shall be carried out in such a way that the ambient temperature during the use is not exceeded.
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3. The connecting and disconnecting of the non-intrinsically safe circuits is only permitted if no explosive atmosphere exists.