

Translation

(1) **EU-Type Examination Certificate**

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**



(3) **Certificate Number** TÜV 15 ATEX 170897 X **issue:** 00

(4) for the product: Load Cell / Strain Gauge Bridge Isolating Repeater/Converter type D5263S; D5263S-xxx; D5264S and D5264S-xxx

(5) of the manufacturer: **G.M. International S.r.l.**

(6) Address: Via Mameli, 53-55
20852 Villasanta (MB) - Italy

Order number: 8003023640

Date of issue: 2020-11-13

(7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential ATEX Assessment Report No. 20 203 279026.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018

EN IEC 60079-7:2015/A1:2018


EN 60079-11:2012

except in respect of those requirements listed at item 18 of the schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions for Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design, and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the product shall include the following:

 **II 3(1) G Ex ec [ia Ga] IIC T4 Gc or**
II (1) D [Ex ia Da] IIIC or
I (M1) [Ex ia Ma] I

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The deputy of the head of the notified body


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(13) **SCHEDULE**

(14) **EU-Type Examination Certificate No. TÜV 15 ATEX 170897 X issue 00**

(15) **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:

$U_o = 7.2 \text{ V}$
 $I_o = 177 \text{ mA}$
 $P_o = 471 \text{ mW}$
 $R = 60 \Omega$
 Characteristic line: trapezoidal
 Effective internal capacitance C_i 1.1 μF
 Effective internal inductance L_i Negligibly small

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 [μF]	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 [μF]	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 [μF]	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 [μF]	10.9	14.9	22.9	94.9	998.9

Thermal data:

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

(16) Drawings and documents are listed in the ATEX Assessment Report No. 20 203 279026

(17) Specific Conditions for Use:

- 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 EN 60079-7 in such a way, that a degree of protection of at least IP 54 according to EN 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.
- 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 EN 60664-1, is achieved.
- The connecting and disconnecting of the non-intrinsically safe circuits is only permitted if no explosive atmosphere exists.

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(18) **Essential Health and Safety Requirements**
No additional ones

- End of Certificate -