

INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX ULD 21.0018X** Page 1 of 4

Certificate history:

Status: Current Issue No: 2

Issue 1 (2022-04-14) Issue 0 (2021-11-03)

Date of Issue: 2023-10-19

Applicant: G.M.International srl

Via G. Mameli, 53-55S

Villasanta MB 20852 Italy

Equipment: Vibration Transducer Interface, D5062S-***

Optional accessory:

Type of Protection: Increased Safety "ec", Intrinsic Safety "ia"

Marking: Ex ec [ia Ga] IIC T4 Gc

[Ex ia Da] IIIC [Ex ia Ma] I

Tamb: -40°C to +70°C

Approved for issue on behalf of the IECEx

Certification Body:

Position:

Signature: (for printed version)

(for printed version)

Andrew Moffat

Senior Project Engineer

2023-10-19

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Certificate issued by:

UL Solutions (Demko) Borupvang 5A Ballerup DK-2750 **Denmark**





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Date of issue: 2023-10-19 Issue No: 2

Manufacturer: G.M.International srl

Via G. Mameli, 53-55S

Villasanta MB 20852 Italy

Manufacturing locations:

G.M.International srl Via G. Mameli, 53-55S

Villasanta MB 20852 Italy

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 Reports:

DK/ULD/ExTR21.0018/00 DK/ULD/ExTR21.0018/01 DK/ULD/ExTR21.0018/02

Quality Assessment Report:

NO/DNV/QAR07.0005/11



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The single channel DIN Rail Vibration Transducer Interface Model D5062S is an isolated intrinsically safe associated apparatus module intended for installation in Zone 2 explosive gas atmospheres / hazardous locations or in non-explosive atmospheres / non-hazardous locations

The module provides galvanically isolated, intrinsically safe circuits with assigned entity parameters. It provides a fully floating dc supply for energizing vibration transducers, accelerometers or 2-3 wires sensors located in Hazardous Area, and repeats the sensor input voltage in a totally isolated circuit located in Safe Area to drive vibration monitors or analyzers for rotating machinery control and supervision purposes.

Model D5062S is packaged in a plastic enclosure suitable for installation on standard DIN Rail, with or without Power Bus connector, or on Termination Boards provided with customer dedicated connection.

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

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- For installations in which both the Ci and Li of the Intrinsically Safe apparatus exceeds 1% of the Co and Lo parameters of the Associated Apparatus (excluding the cable), then 50% of Co and Lo parameters are applicable and shall not be exceeded (50 % of the Co and Lo become the limits which must include the cable such that Ci device + Ccable ≤ 50 % of Co and Li device + L cable ≤ 50 % of Lo). The reduced capacitance of the external circuit (including the cable) shall not be greater than 1uF for Groups I, IIA and IIB and 600 nF for Group IIC.
- The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.
- For hazardous location, the unit shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0, that must have a door or cover accessible only by the use of a tool.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Addition of alternate components.

Issue 2: Revision of components in part list.

Annex:

Annex to IECEx ULD 21.0018X Issue 2.pdf



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TYPE DESIGNATION

Nomenclature:

| D5062S | S | -XXX |
|--------|---|------|
| I | Ш | III |

I - Model designation:

D5062 - DIN-Rail Vibration Transducer Interface

II - No. of Channel:

S - Single channel

III - Configuration - Optional:

XXX – Any alpha-numeric character denoting pre-delivery testing or configuration requested by enduser. No changes are made to the construction of the device.

PARAMETERS RELATING TO THE SAFETY

| Model | Nominal Input Voltage | Nominal Current Consumption | Nominal Power Dissipation |
|--------|-----------------------|--------------------------------|------------------------------|
| D5062S | Terminals 5-6: 24V dc | 90 mA | 2.3 W |

Intrinsically safe specifications:

Um: 250V rms.

| Terminals | Entity Parameters | Group | Co [µF] | Lo [mH] | Lo/Ro [μΗ/Ω] |
|------------|--|------------|---------|---------|--------------|
| 7-8-9-10 | Uo = 27 V Io = 90 mA Po = 576 mW | IIC | 0.09 | 4.1 | 56.8 |
| | | IIB / IIIC | 0.7 | 16.4 | 227.3 |
| | | IIA | 2.3 | 33.9 | 454.7 |
| | | I | 3.75 | 54 | 746.1 |
| 7-8 or 8-9 | Ui = 30V Ii = 91 mA Ci = 0 nF Li = 0 nH | | | | |

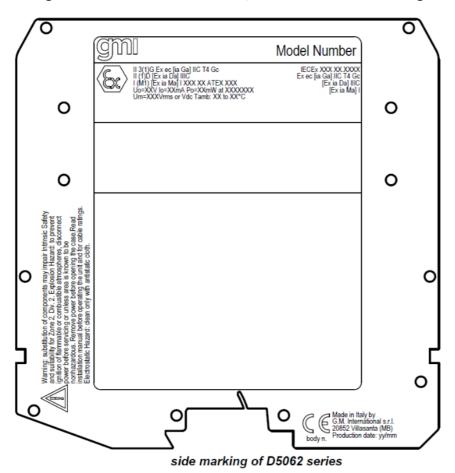


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MARKING

Marking has to be readable and indelible; it has to include the following indications:



Manufacturer: G.M. International 20852 Villasanta Italy (complete address details can be added).

Model Number: D5062S or D5062S-xxx.

IECEx Certification: marking indicated in the certificate, certificate number IECEx ULD 21.0018X.

symbol and marking indicated in the certificate, certificate number UL 21 ATEX 2562X.

Electrical Parameters: rated voltage, along with rated current or rated power.

Um ≤ value indicated in the certificate;

Uo, Io, Po ≥ value indicated in the certificate at terminals 7-8-9-10; and

Ui ≤ value indicated in the certificate, Ii ≤ value indicated in the certificate, Ci, Li ≥ value

indicated in the certificate at terminals 7/9-8.

Ambient Temperature: Tamb: ≥ lower value to ≤ higher value indicated in the certificate.

Identification Data: Serial Number, Production Date, **C** € logo with the number of notified body for ATEX Quality System certification. Serial number and production date can be encrypted if admitted by the Notified Body responsible for production notification.



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ROUTINE EXAMINATIONS AND TESTS

Each piece of equipment shall be subjected to the routine tests for transformers in accordance with clause 11.2 of IEC 60079-11. A test voltage of 1500V rms shall be applied between T100 pins 5-6 and pins 3-4 and between T300 pins 5-6 and pins 1-2 and 3-4 for a minimum of 60 s without breakdown resulting in more than 5mA rms flowing. Alternatively, a test voltage of 1800V rms for a minimum of 1 s may be used.