



# 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 BVS 14.0019X** Page 1 of 5 Certificate history:  
Status: **Current** Issue No: 1 Issue 0 (2014-03-10)  
Date of Issue: 2022-09-14  
Applicant: **G.M. International S.R.L.**  
Via Mameli 53/55  
20852 Villasanta (MB)  
**Italy**  
Equipment: **Power Supply Module type PSD5201 or PSD5201-xxx**  
Optional accessory:  
Type of Protection: **Intrinsic Safety "i", Increased Safety "e"**  
Marking: Ex ec [ia Ga] IIB T4 Gc  
[Ex ia Da] IIIC  
[Ex ia Ma] I

Approved for issue on behalf of the IECEx  
Certification Body:

**Dr Franz Eickhoff**

Position:

**Lead Auditor and officially recognised expert**

Signature:  
(for printed version)



2022-09-14

Date:  
(for printed version)

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Certificate issued by:

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



**DEKRA**  
On the safe side.



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Issue No: 1

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

Manufacturing locations: **G.M. International S.R.L.**  
Via Mameli 53/55  
20852 Villasanta (MB)  
**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 Report:

[DE/BVS/ExTR14.0022/01](#)

Quality Assessment Report:

[NO/DNV/QAR07.0005/10](#)



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

### General remarks

#### Type Code

Power Supply Module type PSD5201, PSD5201-xxx  
(Option 'xxx' = non Ex -relevant details of construction or function)

### Description

The Power Supply Module is designed as associated apparatus and designated for installation in the safe area or alternatively in areas requiring EPL Gc equipment.

Electronic components of the Power Supply Module are arranged on printed-circuit-boards (PCB) packaged in plastic enclosures suitable for installation on T35 DIN Rails.

The intrinsically safe output circuit provides safe galvanic separation from the non-intrinsically safe power supply circuit on the PCB up to a sum of peak values of rated voltages of 375 V.

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

- 1 Group I application  
The Power Supply Module shall be installed outside the hazardous area or alternatively in an enclosure providing a suitable type of protection according to separate certification.  
For Group I application interconnection of the Power Supply Module with other electrical apparatus to an intrinsically safe electrical system shall be assessed in a System Certificate, if required in local installation rules.
- 2 Group II application (gas):  
The Power Supply Module:
  - - must be installed outside the potentially explosive atmosphere, or
  - - in the case of alternative installation, must be used in areas with EPL Gc requirements:
    - used in an area with a pollution degree of at least 2 according to IEC 60664-1 and
    - be installed in an enclosure with a degree of protection of at least IP54 in accordance with IEC 60079-0.
- 3 Group II application (dust):  
The Power Supply Module shall be installed outside the hazardous area or alternatively in an enclosure providing a suitable type of protection according to separate certification.
- 4 General  
The installation of the Power Supply Module shall be carried out in such a way that the clearances of un-insulated conductors of intrinsically safe circuits to grounded metal parts of the enclosure are at least 3 mm, and un-insulated conductors of non-intrinsically safe circuits of other apparatus are situated at least 50 mm from terminals for external intrinsically safe circuits, or are separated from them by an insulating barrier according to clause 6.2.1 of IEC 60079-11:2012.



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**Equipment (continued):**

Ratings:

Power Supply Module type	Voltage		Power
	$U_n$	$U_m$	$P_n$
	DC [V]	AC [V]	[W]
PSD5201, PSD5201-xxx	24	250	≤ 5.1

Parameters		Power Supply Module type PSD5201, PSD5201-xxx
Channel / terminals	1	13/15 -14/16
Voltage $U_o$ (open loop)		DC 21.5 V
Current $I_o$ (short circuit)		604 mA
Load current at $U_n = DC 14.5 V$		150 mA
Power $P_o$		3243 mW
Effective internal capacitance $C_i$		0 nF
Effective internal inductance $L_i$		0 nH
Max. external capacitance $C_o$	IIB	1.2 $\mu F$
	IIIC	
	IIA	4.5 $\mu F$
	I	6.5 $\mu F$
Max. external inductance $L_o$	IIB	0.39 mH
	IIIC	
	IIA	0.78 mH
	I	1.28 mH
Max. inductance- / resistance ratio $L_o/R_o$	IIB	43.8 $\mu H/\Omega$
	IIIC	
	IIA	87.7 $\mu H/\Omega$
	I	143.9 $\mu H/\Omega$
Characteristic		linear
Remark: $U_n = DC 14.5 V$ : regulated nominal IS output voltage		



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

- Change of the type of protection "nA" to "ec"
- Update of standard
  - \*IEC 60079-0