



# 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 20.0016X** Page 1 of 3 [Certificate history:](#)  
Status: **Current** Issue No: 0  
Date of Issue: 2020-04-07  
Applicant: **G.M. International S.R.L.**  
Via Mameli 53/55  
20852 Villasanta (MB)  
Italy  
Equipment: **Repeater Power Supply type D5015\*\*, D5015\*\*-xxx**  
Optional accessory:  
Type of Protection: **Intrinsic Safety "i", Increased Safety "e"**  
Marking: **Ex ec [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I**

Approved for issue on behalf of the IECEx  
Certification Body:


**Jörg Koch**

Position:

**Head of Certification Body**

Signature:  
(for printed version)

Date:

  
24.20

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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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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/BVS/EXTR20.0012/00

Quality Assessment Report:

NO/DNV/QAR07.0005/09



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

### Type Code

D5015\*\*, D5015\*\*-xxx (\*\* = SS: single channel, source output)  
D5015\*\*, D5015\*\*-xxx (\*\* = SK: single channel, sink output)  
Option "xxx" = non Ex-relevant details of construction or function.

### Description

Repeater Power Supply D5015 series are Associated Apparatus and non-sparking electrical apparatus, designed as single channel galvanic isolators, to interface Intrinsically Safe field devices located in potentially explosive atmospheres with non-intrinsically safe measuring and process control equipment located in non-explosive atmospheres.

It is mounted in a plastic enclosure suitable for installation on TH 35 DIN-Rail, with or without Power Bus connector, or on Termination Board provided with customer dedicated connection.

D5015 modules can be 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.

### Ratings:

See Annex

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

#### 1. Group I application:

The Repeater Power Supply shall be installed outside the hazardous area or alternatively in an enclosure providing a suitable type of protection according to separate certification.

#### 2. Group II application:

The Repeater Power Supply shall be installed:

- outside the hazardous area, or
- shall be mounted inside an enclosure, which is in accordance with IEC 60079-7 in case of alternative installation in areas requiring EPL Gc equipment.

#### 3. Group III application:

The Repeater Power Supply 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 Repeater Power Supply 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 60079-11:2011.

### Annex:

BVS\_20\_0016X\_GMI\_Annex.pdf



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**Annex**

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**Ratings:**

**1 Non-intrinsically safe power supply circuit**

Repeater Power Supply version	Voltage		Power
	$U_n$	$U_m$	$P_n$
	DC [V]	AC [V]	[W]
D5015SS, D5015SS-xxx, D5015SK, D5015SK-xxx	24 (18... 30 Vdc)	250	0.9

**2 Intrinsically safe output circuit, level of protection Ex ia IIC / IIB / IIA / I / IIIC**

Parameters		Repeater Power Supply type D5015SS, D5015SS-xxx, D5015SK, D5015SK-xxx
Channel / Terminals		7 - 8
Voltage $U_o$		26.8 V
Current $I_o$		92 mA
Power $P_o$		614 mW
Voltage $U_i$		N / A
Current $I_i$		N / A
Power $P_i$		N / A
Effective internal capacitance $C_i$		0 nF
Effective internal inductance $L_i$		0 nH
Max. external capacitance $C_o$	IIC	0.092 $\mu$ F
	IIB	0.72 $\mu$ F
	IIIC	
	IIA	2.37 $\mu$ F
	I	4.2 $\mu$ F
Max. external inductance $L_o$	IIC	4.2 mH
	IIB	16.9 mH
	IIIC	
	IIA	33.8 mH
	I	55.4 mH
Max. inductance / resistance ratio $L_o/R_o$	IIC	57.9 $\mu$ H/ $\Omega$
	IIB	231.6 $\mu$ H/ $\Omega$
	IIIC	
	IIA	463.3 $\mu$ H/ $\Omega$
	I	760.1 $\mu$ H/ $\Omega$
Characteristics		linear
Ambient temperature range		$-40\text{ }^\circ\text{C} \leq T_a \leq +70\text{ }^\circ\text{C}$
Remarks: N / A = not applicable		



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Parameters		Repeater Power Supply type D5015SS, D5015SS-xxx, D5015SK, D5015SK-xxx
Channel / Terminals		8 - 11
Voltage $U_o$		1.1 V
Current $I_o$		56 mA
Power $P_o$		16 mW
Voltage $U_i$		30 V
Current $I_i$		128 mA
Power $P_i$		N / A
Effective internal capacitance $C_i$		0 nF
Effective internal inductance $L_i$		0 nH
Max. external capacitance $C_o$	IIC	100 $\mu$ F
	IIB	1000 $\mu$ F
	IIIC	
	IIA	1000 $\mu$ F
	I	1000 $\mu$ F
Max. external inductance $L_o$	IIC	11.5 mH
	IIB	46.0 mH
	IIIC	
	IIA	92.1 mH
	I	151.2 mH
Max. inductance / resistance ratio $L_o/R_o$	IIC	2327.2 $\mu$ H/ $\Omega$
	IIB	9309.0 $\mu$ H/ $\Omega$
	IIIC	
	IIA	18618.1 $\mu$ H/ $\Omega$
	I	30545.4 $\mu$ H/ $\Omega$
Characteristics		linear
Ambient temperature range		-40 °C $\leq T_a \leq$ +70 °C
Remarks: N / A = not applicable		