Translation

1 # EU-Type Examination Certificate

2 **Equipment intended for use in potentially explosive atmospheres Directive 2014/34/EU**

3 EU-Type Examination Certificate Number: **BVS 20 ATEX E 023 X**

4 Product: **Repeater Power Supply type D5015**, type D5015**-xxx**

5 Manufacturer: **G.M. International S.R.L.**

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

7 This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

8 DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 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 Report No. BVS PP 20.2026 EU.

9 The Essential Health and Safety Requirements are assured in consideration of:

EN IEC 60079-0:2018	**General requirements**
EN IEC 60079-7:2015 + A1:2018	**Increased safety "e"**
EN 60079-11:2012	**Intrinsic safety "i"**

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix 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 product. 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
II (1)D [Ex ia Da] IIIC
I (M1) [Ex ia Ma] I

DEKRA Testing and Certification GmbH
Bochum, 2020-03-30

Signed: Jörg-Timm Kilisch

Managing Director

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13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 20 ATEX E 023 X

15 **Product description**

15.1 **Subject and type**

Repeater Power Supply type D5015**, type D5015**-xxx

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.

15.2 **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.

15.3 **Parameters**

15.3.1 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

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15.3.2 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 µF
	IIB	0.72 µF
	IIIC	
	IIA	2.37 µF
	I	4.2 µF
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 µH/Ω
	IIB	231.6 µH/Ω
	IIIC	
	IIA	463.3 µH/Ω
	I	760.1 µH/Ω
Characteristics		linear
Ambient temperature range		-40 °C ≤ T_a ≤ +70 °C
Remarks: N / A = not applicable		

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 µF
	IIB	1000 µF
	IIIC	
	IIA	1000 µF
	I	1000 µF
Max. external inductance L_o	IIC	11.5 mH
	IIB	46.0 mH
	IIIC	
	IIA	92.1 mH
	I	151.2 mH

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Max. inductance / resistance ratio L_o/R_o	IIC	2327.2 µH/Ω
	IIB	9309.0 µH/Ω
	IIIC	
	IIA	18618.1 µH/Ω
	I	30545.4 µH/Ω
Characteristics		linear
Ambient temperature range		-40 °C ≤ T_a ≤ +70 °C
Remarks: N / A = not applicable		

16 **Report Number**

BVS PP 20.2026 EU, as of 2020-03-20

17 **Special Conditions for Use**

17.1 **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.

17.2 **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.

17.3 **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.

17.4 **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.

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and 2020-03-30
BVS-Fro/Mu A 20190255

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