



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

Certificate No.:	IECEX BVS 18.0012X	Page 1 of 5	<u>Certificate history:</u>
Status:	Current	Issue No: 2	Issue 1 (2021-10-22) Issue 0 (2019-02-25)
Date of Issue:	2022-07-18		
Applicant:	G.M. International S.R.L. Via G. Mameli 53-55 20852 Villasanta (MB) Italy		
Equipment:	Surge Arresters types D9410S, D9420S, D9510S, D9520S		
Optional accessory:			
Type of Protection:	Intrinsic Safety "i"		
Marking:	Ex ia [ia Ga] IIC T4/T6 Gb Details see ratings / thermal ratings [Ex ia Da] IIIC		

Approved for issue on behalf of the IECEx
Certification Body:

Dr Franz Eickhoff

Position:

Lead Auditor and officially recognised expert

Signature:
(for printed version)


2022-07-18

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

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

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/ExTR19.0005/02](#)

Quality Assessment Report:

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



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

General product information:

The Surge Arresters portfolio consists of following devices:

One-piece Surge Arresters

type **D9410S**

type **D9420S**

Multi-piece Surge Arresters

type **D9510S** consisting of

one base element type **SPP410** and
one plug module type **SPP510**

type **D9520S** consisting of

one base element type **SPP420** and
one plug module type **SPP520**

The base elements and the plug modules of the multi-piece Surge Arresters are coded.
A confusion is thus excluded.

The Surge Arresters are used to limit transient overvoltages which could be coupled into protected intrinsically safe circuits. Thereto, a Surge Arrester is connected into the intrinsically safe circuit which has to be protected. The intrinsically safe circuit is not affected by the connection of the Surge Arrester in its properties.

The Surge Arresters have screw disconnectors which can interrupt the signal lines for maintenance purposes.

The Surge Arresters can be installed in the Zone 1 (Category 2 / EPL Gb).
The Surge Arresters can be mounted on a 35 mm width DIN-rail.

The mounting foot establishes an electrical connection to the 35 mm width DIN-rail.
See conditions for use.

SPECIFIC CONDITIONS OF USE: YES as shown below:

See Annex



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Equipment (continued):

Ratings:

Terminals 1-3 input (unprotected), terminals 4-6 output (protected)

Maximum input / output voltage	U_i / U_o	30 V
Maximum input / output current (see additional thermal ratings)	I_i / I_o	350 mA (T6) 100 mA (T6) 400 mA (T4 / dust) 250 mA (T4)

Maximum internal capacitance	C_i	negligible
Maximum internal inductance	L_i	negligible

The intrinsically safe circuit is not affected by the connection of the surge protection module in its properties.

The mounting foot establishes an electrical connection to the 35 mm width DIN-rail.
See special conditions for use.

The one-piece Surge Arrester type D9420S and the Multi-piece surge Surge Arrester type D9520S consisting of a base element type SPP420 and a plug module type SPP520 ($I_i / I_o = 400 \text{ mA} / T4$) can be used for connection inside of a fieldbus system according to the FISCO concept.

Thermal ratings:

Ambient temperature range for installation inside of the hazardous area:

- 40 °C ≤ T_a ≤ +50 °C for temperature class T4 and $I_i = 400 \text{ mA}$
- 40 °C ≤ T_a ≤ +70 °C for temperature class T4 and $I_i = 250 \text{ mA}$
- 40 °C ≤ T_a ≤ +35 °C for temperature class T6 and $I_i = 350 \text{ mA}$
- 40 °C ≤ T_a ≤ +70 °C for temperature class T6 and $I_i = 100 \text{ mA}$

Ambient temperature range for installation outside of the hazardous area:

- 40 °C ≤ T_a ≤ +85 °C



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

The ambient temperature range was enhanced depending on maximum input current I_i .
The marking was modified.

Annex:

[BVS_18_0012X_G.M.International_Annex_issue2.pdf](#)



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Specific Conditions of Use:

- 1 Ambient temperature range for installation inside of the hazardous area:
 - 40 °C ≤ T_a ≤ +50 °C for temperature class T4 and I_i = 400 mA
 - 40 °C ≤ T_a ≤ +70 °C for temperature class T4 and I_i = 250 mA
 - 40 °C ≤ T_a ≤ +35 °C for temperature class T6 and I_i = 350 mA
 - 40 °C ≤ T_a ≤ +70 °C for temperature class T6 and I_i = 100 mAAmbient temperature range for installation outside of the hazardous area:
 - 40 °C ≤ T_a ≤ +85 °C
- 2 For installation inside of the hazardous area:
 - The Surge Arresters must be protected from electrostatic charging.
- 3 The mounting foot establishes an electrical connection to the 35 mm width DIN-rail.
 - The Surge Arresters type D9410S and type D9510S are directly connected over the terminals 3 and 6 to the mounting foot.
 - The Surge Arresters type D9420S and type D9520S are connected over the terminals 3 and 6 and via an internal surge arrester to the mounting foot.
 - The Terminals 1, 2, 4 and 5 are connected to terminals 3 and 6 via internal surge arresters for all types.
 - The breakdown voltage of the surge arresters is less than 500 VAC.
 - The breakdown voltage between the intrinsically safe circuit and the earth connection (mounting foot) is therefore less than 500 VAC depending on the design.
 - The intrinsically safe circuit is earthed, depending on the type of Surge Arresters and from the installation, in normal operation or by fault. Along to the intrinsically safe circuit potential equalization has to be provided.
- 4 The Surge Arresters are intrinsically safe apparatus. The devices were tested in accordance to the standards IEC 60079-0 and IEC 60079-11. The suitability of the devices as an overvoltage protection device according to IEC 60079-25 is not subject of this Test Report. Further considerations are required.