

Translation

Type Examination Certificate Supplement 8

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

3 Type Examination Certificate Number: **BVS 10 ATEX E 114 X**

4 Product: **DIN Rail Trenner type D5****, D5****-xxx**

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

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

7 This supplementary certificate extends Type Examination Certificate No. BVS 10 ATEX E 114 X to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any variations specified in the appendix attached to this certificate and the documents referred to therein.

8 DEKRA Testing and Certification GmbH 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. PP 16.2168 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 IEC 60079-15:2019 | Type of Protection "n" |

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 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 3G Ex ec nC IIC T4 Gc | (Relay Output) |
| | II 3G Ex ec IIC T4 Gc | (Switch Repeater) |

DEKRA Testing and Certification GmbH
Bochum, 2022-04-12

Signed: Jörg-Timm Kilisch

Managing Director

13 **Appendix**

14 **Type Examination Certificate**

**BVS 10 ATEX E 114 X
Supplement 8**

15 **Product description**

15.1 **Subject and type**

DIN Rail Isolators type series D5****, D5****-xxx comprising the following models:

| | | |
|--------------|------|--|
| Relay Output | type | D5090S, D5090S-xxx, D5091S, D5091S-xxx |
| Relay Output | type | D5090S-086 |
| Relay Output | type | D5094S, D5094S-xxx, D5095S, D5095S-xxx |
| Relay Output | type | D5096S, D5096S-xxx, D5097S, D5097S-xxx |
| Relay Output | type | D5290S, D5290S-xxx, D5291S, D5291S-xxx |
| Relay Output | type | D5290S-078 |
| Relay Output | type | D5293S, D5293S-xxx, D5294S, D5294S-xxx |
| Relay Output | type | D5295S, D5295S-xxx |

Switch Repeater type D5093S, D5093S-xxx, D5093D, D5093D-xxx

D5***S = single channel

D5***S-xxx = single channel

D5***D = dual channel

D5***D-xxx = dual channel

(Option 'xxx' = non Ex-relevant details of function)

15.2 **Description**

The electronic components of the DIN rail disconnecter type series D5****, D5****-xxx are housed on insulating material plates which are built into a plastic housing for T35 DIN rail mounting or for "Termination Board" mounting.

Relay output type D509*S, D509*S-xxx, D529*S, D529*S-xxx, D5090S-086, D5290S-078

The relay outputs are used for single-channel, galvanic isolation between input and output circuits in different relay contact numbers and relay contact arrangements. The units are designed in type of protection "ec", while the relays integrated in them are designed in type of protection "nC".

Switching amplifier type: D5093S, D5093S-xxx, D5093D or D5093D-xxx

The switching amplifier is used for single-channel or dual-channel galvanic isolation between input circuits and optocoupler output circuits.

Reason for the supplement:

- Update of the standards statuses
 - EN 60079-0:2012+A11:2013 to EN IEC 60079-0:2018
 - EN 60079-15:2010 to EN IEC 60079-15:2019
- Update of the type of protection "nA" to "ec"

15.3 Parameters

15.3.1 Power supply circuit

| Relay Output | Voltage | Power dissipation |
|---|---------------------|-------------------|
| | U_n | P_n |
| | DC [V] | [W] |
| D5090S, D5090S-xxx, D5091S, D5091S-xxx | 24 | ≤ 1.2 |
| D5090S-086 | | |
| D5290S, D5290S-xxx, D5291S, D5291S-xxx | | ≤ 2.00 |
| D5290S-078 | 24 (21.6...27.6) | ≤ 1,4 |
| D5094S, D5094S-xxx | | |
| D5095S, D5095S-xxx | | |
| D5096S, D5096S-xxx | | ≤ 1.4 + 0.37 |
| D5097S, D5097S-xxx | | |
| D5293S, D5293S-xxx | | 1.1 |
| D5294S, D5294S-xxx | | |
| D5295S, D5295S-xxx | | 1.2 |

15.3.2 Relay contacts

| Single channel; contact rating | Device ¹⁾ | | |
|--|---|-------------------|------------------------------|
| | D5090S, D5090S-086, D5091S, D5094S, D5095S, D5096S, D5097S, D5290S-078 | D5290S, D5291S | D5293S, D5294S, D5295S |
| rated AC voltage | 250 V | 250 V | 250 V |
| rated AC current | 5 A | 10 A | 5 A |
| rated AC Power | 1250 VA | 2500 VA | 1000 VA |
| rated DC voltage | 250 V | 250 V | 250 V / 30 V |
| rated DC Current | ²⁾ | ²⁾ | 0,2 A ³⁾ / 4 A |
| rated DC Power | ²⁾ | ²⁾ | ²⁾ / 120 W |
| Remarks: | | | |
| 1) D5*9*S parameters refer also to D5*9*S-xxx models | | | |
| 2) see detailed data sheet | | | |
| 3) resistive load | | | |

15.3.3 Fault signal output

| Single channel; contact rating | Device ¹⁾ | | |
|--|----------------------|---------------------------|---------------------|
| | D5096S, D5097S | D5293S, D5294S, D5295S | |
| | | Output 1 | Output 2 |
| rated AC voltage | - | 30 V | 250 V |
| rated AC current | - | 500 mA | 3 A |
| rated AC Power | - | 15 VA | 750 VA |
| rated DC voltage | 35 V | 50 V | 125 V |
| rated DC Current | 100 mA | 500 mA | 3 A |
| rated DC Power | - | 25 W ²⁾ | 120 W ²⁾ |
| Remarks: | | | |
| 1) D5*9*S parameters refer also to D5*9*S-xxx models | | | |
| 2) resistive load | | | |

15.3.4 Switch Repeater type D5093*, D5093*-xxx

15.3.4.1 Power supply circuit

| Switch Repeater type | Voltage | Power dissipation |
|----------------------|-----------|-------------------|
| | U_n | P_n |
| | DC/AC [V] | [W] |
| D5093S, D5093S-xxx | 18...250 | ≤ 1.125 |
| D5093D, D5093D-xxx | 18...250 | ≤ 2.25 |

15.3.4.2 Switch output: U_n DC 35 V; I_n 50 mA

15.3.5 Ambient temperature range (all devices): $-40\text{ °C} \leq T_a \leq +70\text{ °C}$

16 **Report Number**

BVS PP 16.2168 EU, as of 2022-04-12

17 **Special Conditions for Use**

- The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.
- The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with EN IEC 60079-0.

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 Certification GmbH
Bochum, 2022-04-12
BVS-Ret/MGR A20210557



Managing Director