

# EU-TYPE EXAMINATION CERTIFICATE



## Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- [1] EU-Type Examination Certificate Number: **UL 24 ATEX 3258X Rev. 0**
- [2] Product : **Switch/Proximity Relay-Out Repeater, D5232Q-xxx and Switch/Proximity Transistor-Out Repeater, D5233Q-xxx**
- [3] Manufacturer : **G.M. International s.r.l.**
- [4] Address : **Via G. Mameli, 53-55, Villasanta, MB 20852 Italy**
- [5] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- [6] UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the 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. **DK/ULD/ExTR24.0023/00.**
- [7] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN IEC 60079-0:2018**                      **EN IEC 60079-7:2015/A1:2018**  
**EN 60079-11:2012**                        **EN IEC 60079-15:2019**
- Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule
- [8] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.
- [9] This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.
- [10] The marking of the product shall include the following (marking is provided in the Schedule as a part of item 15, if applicable):

**Ex II 3 (1) G Ex ec nC [ia Ga] IIC T4 Gc or Ex ec [ia Ga] IIC T4 Gc**

**Ex II (1) D [Ex ia Da] IIIC**

**Ex II (M1) [Ex ia Ma] I**

**Certification Manager**  
Thomas Wilson

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

**Date of issue:** 2024-11-08

**Notified Body**      UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark  
Tel. +45 44 85 65 65, [info.dk@ul.com](mailto:info.dk@ul.com), [www.ul.com](http://www.ul.com)



Accredited by DANAK under registration number 7011 to certification of products.

Form-ULID-000217 (DCS:00-IC-F0056-1) – Issue 29.0

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# Schedule

## EU-TYPE EXAMINATION CERTIFICATE No.

### UL 24 ATEX 3258X Rev. 0

[15]

Description of Product

The Switch/Proximity Detector Repeater D5232Q-xxx is an associated apparatus and increased safety apparatus to be configured for switches or proximity detectors, located in Hazardous Area, and repeat the input state to a relay contact in Safe Area. The selectable fault detection circuit is available for proximity sensors or switches equipped with end-of-line resistors. Input-to-output function can be inverted, and signals can be duplicated.

It is packaged in a plastic enclosure suitable for installation on EN/IEC60715 TH 35 DIN-Rail, with or without Power Bus connector. Electrical connections are accommodated by plug-in removable terminal block. Model D5232Q-xxx can be mounted with any orientation over the entire ambient temperature range.

The Switch/Proximity Detector Repeater D5233Q-xxx is an associated apparatus and increased safety apparatus to be configured for switches or proximity detectors, located in Hazardous Area, and repeat the input state to an open-collector transistor in Safe Area. The selectable fault detection circuit is available for proximity sensors or switches equipped with end-of-line resistors. Input-to-output function can be inverted, and signals can be duplicated.

It is packaged in a plastic enclosure suitable for installation on EN/IEC60715 TH 35 DIN-Rail, with or without Power Bus connector, or on customized Termination Boards. Electrical connections are accommodated by plug-in removable terminal block. Model D5233Q-xxx can be mounted with any orientation over the entire ambient temperature range.

Nomenclature:

D5232	Q	-xxx
I	II	III

I- Model Designation:

- D5232 – Switch/Proximity Relay-Out Repeater DIN-Rail
- D5233 – Switch/Proximity Transistor-Out Repeater DIN-Rail and Termination Board

II- Output type:

- Q – 4 channels

III- Configuration – Optional:

- xxx – Any alpha-numeric character denoting pre-delivery testing or configuration requested by end-user. No changes are made to construction of the device.

Marking:

Model	Ex Marking
D5232Q-xxx	Ex ec nC [ia Ga] IIC T4 Gc [Ex ia Da] IIIC [Ex ia Ma] I
D5233Q-xxx	Ex ec [ia Ga] IIC T4 Gc [Ex ia Da] IIIC [Ex ia Ma] I

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception 1) to the scope of EN 60079-28:2015.

Temperature range

The ambient temperature range is -40°C to +70°C.

Electrical data

Model	Supply voltage Terminals 9-10	Current consumption	Power consumption	Input Terminals 13-20	Output Terminals 1-8
D5232Q-xxx	24V dc (SELV) (18-30 Vdc tolerances)	Max 94 mA	Max 1.7W	4 channels 7.5V/1KΩ typical (7.5V no load, 7.5mA short circuit)	4 channels Resistive Load 2A, 250Vac Resistive Load 2A, 250V ac, 500VA; 2A, 250V dc, 80W
D5233Q-xxx	24V dc (SELV) (18-30 Vdc tolerances)	Max 57 mA	Max 1.2W	4 channels 7.5V/1KΩ typical (7.5V no load, 7.5mA short circuit)	4 channels Max 100mA, 35Vdc

Intrinsically safe specifications:

U<sub>m</sub> : 250V rms or Vdc



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## Schedule

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Model	Terminals		Group	Co [ $\mu$ F]	Lo [mH]	Lo/Ro [ $\mu$ h/ $\Omega$ ]
D5232Q-xxx D5233Q-xxx	13-14, 15-16, 17-18, 19-20 (Ch1 to Ch4)	Uo: 11.2V Io: 12 mA Po: 34 mW	IIC	1.83	253.4	1074
			IIB or IIIC	12.5	1000	4299
			IIA	53.9	1000	8599
			I	57.9	1000	14108

#### Routine tests

Each piece of equipment shall be subjected to the routine tests for transformers in accordance with Clause 11.2 of IEC 60079-11. A test voltage of 1500V rms shall be applied between T201 pins 5,6-7,8 and pins 1,2-3,4 for a minimum of 60s without breakdown resulting in more than 5mA rms flowing. Alternatively, a test voltage of 1800V rms for a minimum of 1s may be used.

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#### Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [ 8 ] on page 1 of this EU-Type Examination Certificate.

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#### Specific conditions of use:

- For installations in which both the Ci and Li of the Intrinsically Safe apparatus exceeds 1% of the Co and Lo parameters of the Associated Apparatus (excluding the cable), then 50% of Co and Lo parameters are applicable and shall not be exceeded. The reduced capacitance of the external circuit (including the cable) shall not exceed 1 $\mu$ F for Groups I, IIA and IIB and 600 nF for Group IIC.
- The equipment shall only be used in an area of at least pollution degree 2, as defined in EN 60664-1.
- For hazardous location, the unit shall be installed in an enclosure that provides a minimum ingress protection of IP54 in accordance with EN IEC 60079-0, that must have a door or cover accessible only by the use of a tool.
- Isolation in accordance with Clause 6.3.13 of EN 60079-11 is not provided between separate intrinsically safe circuits.
- Isolation in accordance with Clause 6.3.13 of EN 60079-11 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

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#### Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

#### Additional information



The trademark will be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.