



CERTIFICATE

1 EU – Type Examination Certificate

2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU

3 EU – Type Examination Certificate Number: **KIWA 19ATEX0003 X Issue: 1**

4 Product: **Surge Protection Barrier Series M-LB-Ex-2******

5 Manufacturer: **Pepperl+Fuchs GmbH**

6 Address: **Lilienthalstraße 200, 68307 Mannheim
Germany**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Kiwa Nederland B.V., Notified Body number 0620 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 confidential ATEX Assessment Report No. 181101518-2.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0 : 2018 EN 60079-11 : 2012

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule 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 2(1)G
II (1)D
I (M1)

Ex ia [ia Ga] IIC T6...T4 Gb
[Ex ia Da] IIIC
[Ex ia Ma] I

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Ronald Karel
Managing Director

Issue date:

14 June 2019

First issue:

This certificate shall, as far as applicable, be revised before the date of cessation of presumption of conformity of (one of) the included standards above as communicated in the Official Journal of the European Union.

© Integral publication of this certificate in its entirety and without any change is allowed.

13 SCHEDULE

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15.1 Description of Product

The Surge Protection Barriers series M-LB-Ex-2**** are used to protect the electrical devices from overvoltages induced in signal lines caused by indirect lightning strikes, switching operations or similar incidents. The devices are mounted on an earthed DIN mounting rail.

The Surge Protection Barriers are provided for grounded or ungrounded signal circuits and for signals with 1 V DC nominal voltage or 24 V DC nominal voltage. Depending on nominal voltage, suppressor diodes with different break down voltage are used.

Both signal lines in the Surge Protection Barrier maybe interrupted using the line disconnectors placed on the front side of the module. This feature maybe used to disconnect the field wiring e.g. for high voltage testing.

The Surge Protectors are provided whether with screw or spring terminals.

Ambient temperature range: -40 °C to +80 °C (for derating see manufacturers documentation)

15.2 Electrical data

Module input/output circuits (screw or spring terminals 2,3 resp. 4,5 (terminal 1 is Ground)): in type of protection intrinsic safety Ex ia IIC, for connection to a certified intrinsically safe circuit, with the following maximum values:

$U_i = 6 \text{ V}$ or 30 V ; $I_i = 500 \text{ mA}$ maximum (for derating see manufacturers documentation);

$P_i = \text{any}$; $C_i = 0 \text{ nF}$; $L_i = 20 \text{ }\mu\text{H}$;

The values of U_o , I_o and P_o are determined by the parameters of the circuit(s) to which the Surge Protection Barriers series M-LB-Ex-2**** is connected.

15.3 Instructions

The instructions provided with the product shall be followed in detail to assure safe operation.

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17 Specific Conditions of Use

The dielectric strength of at least 500 V of the intrinsically safe circuits of the Surge Protection Barriers series M-LB-Ex-2**** is limited only by the overvoltage protection. Terminals 2, 3, 4 and 5 are considered to be connected to earth.

The Surge Protection Barriers series M-LB-Ex-2****, if placed in a hazardous area, shall be installed and maintained such that hazards caused by electrostatic discharge are excluded.

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at section 9.

For this product the standard EN IEC 60079-0 : 2018 is equivalent to the harmonized standard EN 60079-0 : 2012 + A11 : 2013 in terms of safety.



13 **SCHEDULE**

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19 **Drawings and Documents**

As listed in ATEX Assessment Report No. 181101518-2

