

CERTIFICATE

EC-Type Examination

- (1)
- (2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**
- (3) EC-Type Examination Certificate Number: **KEMA 09ATEX0191 X** Issue Number: **3**
- (4) Equipment: **Surge Protector Type D*-LBF-***
- (5) Manufacturer: **Pepperl+Fuchs GmbH**
- (6) Address: **Lilienthalstrasse 200, 68307 Mannheim, Germany.**

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

(8) DEKRA Certification B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential test report number 212902300/2.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2012

EN 60079-11 : 2012

EN 60079-26 : 2007

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:



**II 2(1)G Ex ia [ia Ga] IIC T4,T5,T6 Gb or
II 2(1)G Ex ia IIC T4,T5,T6**

This certificate is issued on 10 May 2013 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

DEKRA Certification B.V.



C.G. van Es
Certification Manager

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(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 09ATEX0191 X**

Issue No. 3

(15) **Description**

Surge Protectors series D*-LBF-* serve as transient suppressors in the lines of electronic circuits.

This approval applies to the following equipment:

Base units Type DB-LBF-I1 and Type DB-LBF-I1.I and modules Type DP-LBF-I1.36.DE and Type DP-LBF-I1.36.IE.

The relation between the ambient temperature and temperature class is per table below.

Ambient temperature range	Temperature class
-50 °C to +50 °C	T6
-50 °C to +75 °C	T5
-50 °C to +80 °C	T4

Electrical data

Module input circuits (terminals X1, X2, X5 and X6):

in type of protection intrinsic safety Ex ia IIC, for connection to a certified intrinsically safe circuit, with the following maximum values:

$U_i = 30 \text{ V}$; $I_i = 500 \text{ mA}$; $P_i = \text{any}$; $C_i = 0 \text{ nF}$; $L_i = 0 \text{ mH}$;

or for connection to a certified intrinsically safe circuit or a circuit in accordance with FISCO, with the following maximum values:

$U_i = 17,5 \text{ V}$; $I_i = 380 \text{ mA}$; $P_i = 5,32 \text{ W}$; $C_i = 0 \text{ nF}$; $L_i = 0 \text{ }\mu\text{H}$.

Module output circuits (terminals X3, X4, X7 and X8):

The values of U_o , I_o and P_o are determined by the parameters of the circuit(s) to which the Surge Protector series D*-LBF-* is connected.

Installation instructions

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

(16) **Test Report**

No. 212902300/2.

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 09ATEX0191 X**

Issue No. **3**

(17) **Special conditions for safe use**

For ambient temperature range, see (15).

The dielectric strength of at least 500 V of the intrinsically safe circuits of the Surge Protector series D*-LBF-* is limited only by the overvoltage protection.
Terminals X5, X6, X7 and X8 are considered to be connected to earth.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 212902300/2.