



Translation

EU-Type Examination Certificate Supplement 1

Change to Directive 2014/34/EU

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

3 EU-Type Examination Certificate Number: **BVS 10 ATEX E 048**

4 Product: **Surge protective device type FDB-*/24-***

5 Manufacturer: **OBO Bettermann GmbH & Co. KG**

6 Address: **Hüingser Ring 52, 58710 Menden, Germany**

7 This supplementary certificate extends EC-Type Examination Certificate No. BVS 10 ATEX E 048 to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

8 DEKRA EXAM GmbH, Notified Body number 0158, 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 the confidential Report No. PP 10.2102 EU.

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

| | |
|-----------------------------------|-----------------------------------|
| EN 60079-0:2012 + A11:2013 | General requirements |
| EN 60079-11:2012 | Intrinsic Safety "i" |
| EN 60079-25:2010 | Intrinsically safe systems |

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 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:

⊕ Ex II 2(1)G Ex ia [ia Ga] IIC T6...T4 Gb

DEKRA EXAM GmbH
Bochum, 2016-08-12

Signed: Dr. Franz Eickhoff

Signed: Dr. Michael Wittler

Certifier

Approver

13 **Appendix**
14 **EU-Type Examination Certificate**

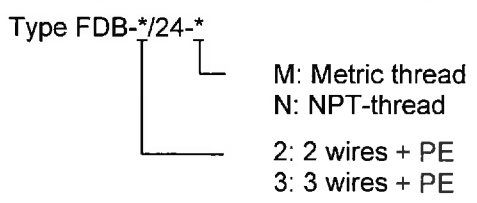
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Supplement 1

15 **Product description**

15.1 **Subject and type**

Surge protective device type FDB-*/24-*

The surge protective device is designed in the following variants:



15.2 **Description**

With this supplement the certificate is changed to Directive 2014/34/EU.
(Annotation: In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.)

15.2.1 **Description of product**

The surge protective device type FDB-*/24-* protects an intrinsically safe circuit with two resp. three wires from overvoltages.

The voltages of the wires against earth are limited.

Type FDB-2/24-* is designed for connection to a 2-wire intrinsically safe circuit, type FDB-3/24-* is designed for connection to a 3-wire intrinsically safe circuit.

The surge protective device can be installed in explosive areas which require category 2 equipment (zone 1). The intrinsically safe circuits may be led into areas requiring category 1 equipment (zone 0).

The surge protective device does not influence the intrinsic safety of the connected circuit.

The surge protective device is intended to be screwed into an enclosure. It consists of a PCB which is encapsulated inside a metallic enclosure. The connection is made via wires protruding from the encapsulation.

15.2.2 **Reasons for this supplement:**

- Change to Directive 2014/34/EU
- Assessment of the device for accordance with the current standard versions
- Adjustment of the parameters; expansion to temperature classes T4 and T5

15.2.3 **Listing of all components used referring to older standards**

None

15.3 **Parameters**

15.3.1 **Connection wires**

for the connection of the 2-wire- resp. 3-wire-intrinsically safe circuit which has to be protected

Wire 1: red, wire 2: black, wire 3: green

| | | | | |
|-----------------------|-------|----|------------|----|
| Maximum input voltage | U_i | DC | 32 | V |
| Maximum input current | I_i | | 500 | mA |
| Internal capacitance | C_i | | negligible | |
| Internal inductance | L_i | | negligible | |

15.3.2 **Green-yellow connection wire for connection to PE**

15.3.3 **Ambient temperature range**

| | | |
|---------------|-------|------------------|
| For T6-Rating | T_a | -20 °C... +50 °C |
| For T5-Rating | | -20 °C... +65 °C |
| For T4-Rating | | -20 °C... +70 °C |

16 **Report Number**

BVS PP 10.2102 EU, as of 2016-08-12

17 **Special Conditions for Use**

None

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 EXAM GmbH
Bochum, dated 2016-08-12
BVS-Le/Nu A 20151034



Certifier



Approver