

Translation

# EU-Type Examination Certificate Supplement 2

Change to Directive 2014/34/EU

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

EU-Type Examination Certificate Number: **BVS 07 ATEX E 044 X**

Product: **Inductive sensor type ISD-\*\*-\*-GD**

Manufacturer: **Matrix Elektronik AG**

Address: **Kirchweg 24, 5420 Ehrendingen, Switzerland**

This supplementary certificate extends EC-Type Examination Certificate No. BVS 07 ATEX E 044 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 acceptable variations specified in the appendix to this certificate and the documents referred to therein.

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. BVS PP 07.2034 EU.

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

|                                   |                                    |
|-----------------------------------|------------------------------------|
| <b>EN 60079-0:2012 + A11:2013</b> | <b>General requirements</b>        |
| <b>EN 60079-1:2014</b>            | <b>Flameproof enclosure "d"</b>    |
| <b>EN 60079-31:2014</b>           | <b>Protection by Enclosure "t"</b> |

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.

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.

The marking of the product shall include the following:

 **II 2G Ex db IIC T5 Gb**  
**II 1/2D Ex ta/tb T100°C IIIC Da/Db**

DEKRA EXAM GmbH  
Bochum, 2017-08-28

Signed: Jörg Koch

Certifier

Signed: Ralf Leiendecker

Approver

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This certificate may only be reproduced in its entirety and without any change.



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13 **Appendix**

14 **EU-Type Examination Certificate**

**BVS 07 ATEX E 044 X  
Supplement 2**

15 **Product description**

15.1 **Subject and type**

Inductive sensor type ISD-\*(1)-(2)-GD

The asterisk are replaced by further ratios which characterize the design with regard to the range, the type of installation and the length of the enclosure.

|    |  |
|----|--|
| IS | Safety- Inductive sensors series ISx                             |
| D  | Flameproof enclosure   |
| 1) | Range in mm<br>05: 5 mm<br>10: 10 mm<br>15: 15 mm                |
| 2) | Mounting<br>B: Flush<br>NB: Not flush                            |
| GD | Supplementary information for gas and dust explosion protection. |

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.)

The inductive sensor is used for non-contact detection of materials. The induction sensors made of aluminum or brass are designed in the type of protection Flameproof Enclosure "d". The enclosures are equipped with non-detachable cables.

The inductive sensors are suitable for use in ambient temperature ranges from -10 ° C to + 50 ° C and also meet the requirements for the type of protection "Protection by Enclosure".

**Reasons for the supplement:**

- Change to directive 2014/34 / EU
- Increase to current standards

15.3 **Parameters**

|        |                                       |       |    |         |
|--------|---------------------------------------|-------|----|---------|
| 15.3.1 | Rated voltage                         | up to | 24 | V       |
| 15.3.2 | Maximum supply voltage                | up to | 30 | V       |
| 15.3.3 | Current rating of the working circuit | up to | 1  | A       |
| 15.3.4 | Housing length                        | 125   | to | 200 mm  |
| 15.3.5 | Ambient temperature range             | -10   | to | +50 ° C |

15.3.6 Power  $P_{max}$

At a max. ambient temperature of 50 ° C, a sleeve length of 120 mm and a housing surface with thread, a power of  $P_{max} = 3.26$  W is permissible.

At a max. ambient temperature of 50 ° C, a sleeve length of 200 mm and a housing surface with a thread, a power of  $P_{max} = 4.85$  W is permissible.

16 **Report Number**

BVS PP 07.2034 EU, as of 2017-08-28

17 **Special Conditions for Use**

17.1 The non-metallic enclosure parts of the inductive sensors must be protected against direct sunlight and UV radiation.

The lengths of the flameproof joints are in parts longer and the gaps of the flameproof joints are in parts smaller than the values of table 2 and 3 of EN 60079-1:2014. For information of the dimensions of the flameproof joints contact the manufacturer.

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.

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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 2017-08-28  
BVS-Wlo/Kir/Mu A20170501

  
\_\_\_\_\_  
Certifier

  
\_\_\_\_\_  
Approver