



- [1] **EU-TYPE EXAMINATION CERTIFICATE - Translation**
- [2] Equipment or protective systems intended for use in potentially explosive atmospheres, Directive 2014/34/EU
- [3] EU-type examination certificate number **IBExU11ATEX1133 X** | Issue 1
- [4] Product: **Optical Transceiver**
Type: P-Ex1 OTR opis *
- [5] Manufacturer: PRIMATION Systemtechnik GmbH & Co. KG
- [6] Address: Bretonischer Ring 13
85630 Grasbrunn
GERMANY
- [7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] IBExU Institut für Sicherheitstechnik GmbH, notified body number 0637 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 test report IB-20-3-0095.

- [9] 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 and EN 60079-28:2015 except in respect of those requirements listed at item [18] of the schedule.
- [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 depending on the type:

II (1)G [Ex op is Ga] IIC T4 or II (2)G [Ex op is Gb] IIC T4
 II (1)D [Ex op is Da] IIIC T135°C or II (2)D [Ex op is Db] IIIC T135°C
 I (M1) [Ex op is Ma] I or I (M2) [Ex op is Mb] I

The device mentioned under [4] also meets with special conditions the requirements for a device of device group II, category 3G:

II 3(1)G Ex ec [op is Ga] IIC T4 Gc X or II 3(2)G Ex ec [op is Gb] IIC T4 Gc X
-40 °C ≤ T_{amb} ≤ +80 °C

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By order

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Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Freiberg, 2020-08-07

[13] **Schedule**

[14] **Certificate number IBExU11ATEX1133 X | Issue 1**

[15] **Description of product**

The optical transceiver type P-Ex1 OTR opis * is used as associated electrical equipment outside of hazardous areas as a stationary repeater. Optical input signals with a connector type "ST", "SC", "LC" or "RJ45" are converted into inherently safe optical output signals. These signals can be sent to areas requiring category M1 or M2, 1G or 2G, 1D or 2D equipment.

Technical data:

Ambient temperature range: -40 °C up to +80 °C

Power supply circuit: 10 – 30 V DC

Rated voltage: 250 V

Power consumption: max. 2 W

LWL connectors: $P_{opt} < 35 \text{ mW}$

Variations compared to EG-Type Examination Certificate IBExU11ATEX1133 and its addition:

- The types with wide voltage range 90 to 230 V AC have been removed.
- Minor adjustments were made to the circuit. These have no effect on the type of protection.
- The device meets the requirements of the current standards.

[16] **Test report**

The test results are recorded in the confidential test report IB-20-3-0095 of 2020-08-07.
The test documents are part of the test report and they are listed there.

Summary of the test results

The optical transceiver type P-Ex OTR opis * further meets the requirements of explosion protection for associated equipment in Group I, Category (M1) or (M2) or Group II, Category (1)G or (2)G and Category (1)D or (2)D for equipment with inherently safe optical radiation.

[17] **Specific conditions of use** (requires the marking with the symbol "X")

For applications requiring Category 3 equipment, the device must be installed in a separately tested housing according to EN IEC 60079-7 (IP54 or better).

[18] **Essential health and safety requirements**

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report:

None

[19] **Drawings and Documents**

The documents are listed in the test report.

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