

# CERTIFICATE

## EU-Type Examination

- (1) **Component intended for use on/in equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**
- (2) EU-Type Examination Certificate Number: **DEKRA 18ATEX0114 U** Issue Number: **0**
- (3) Product: **Enclosure Series TBE**
- (4) Manufacturer: **Rose Systemtechnik GmbH**
- (5) Address: **Erbeweg 13-15, D-32457 Porta Westfalica, Germany**
- (6) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (7) DEKRA Certification B.V., Notified Body number 0344 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 test report number NL/DEK/ExTR19.0013/00.
- (8) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN IEC 60079-0 : 2018      EN 60079-1 : 2014      EN 60079-31 : 2014**
- except in respect of those requirements listed at item 18 of the Schedule.
- (9) The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.
- (10) 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.
- (11) The marking of the product shall include the following:



**II 2 G    Ex db IIB Gb or Ex db IIC Gb**  
**II 2 D    Ex tb IIIC Db**

Date of certification: 30 August 2019

DEKRA Certification B.V.

R. Schuller  
Certification Manager



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(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 18ATEX0114 U**

Issue No. **0**

(15) **Description**

Enclosures Series TBE, made of aluminium, stainless steel or cast iron with a threaded cover, with or without display window, are intended to be used in potentially explosive atmospheres for the mounting of electrical apparatus such as terminals, switching-, control-, regulating-, measuring- and indicating devices.

The TBE series consist of 6 types:

- TBE 100T, TBE 130T and TBE 160T: enclosures in 3 different sizes, without display window;
- TBE 100TW, TBE 130TW and TBE 160TW: enclosures in 3 different sizes, with display window.

The electrical connections are made by using separately certified cable glands or conduit entries.

Service temperature range:

- Enclosure without display window: -60 °C to +110 °C
- Enclosure with 12 mm thick display window: -60 °C to +75 °C
- Enclosure with 8 mm thick display window: -20 °C to +75 °C

Degree of protection IP66 according to EN 60529 and EN 60079-0.

**Technical data**

The relation between enclosure type, temperature class, maximum surface temperature, maximum ambient temperature and maximum allowed power dissipation is given in the table below.

Type TBE	Dimensions (H X W x D) (mm)	Temperature class:	T6	T5	T4	T6	T5	T4
		Maximum surface temperature*:	T85 °C	T100 °C	T135 °C	T85 °C	T100 °C	T135 °C
		Maximum ambient temperature:	+40 °C	+55 °C	+90 °C	+60 °C	+75 °C	+110 °C
100T	130 x 116 x 98	Maximum allowed power dissipation:	20 W			12 W		
130T	160 x 148 x 107		29 W			15 W		
160T	190 x 180 x 116		41 W			24 W		
100TW	130 x 116 x 110		20 W	X	12 W	X		
130TW	160 x 148 x 124		29 W	X	15 W	X		
160TW	190 x 180 x 134		41 W	X	24 W	X		
* : values have been determined without a dust layer X = ... TW types are not suitable for T4 / T135 °C								

**Options**

The threaded flamepaths may be provided with a max. 0.008 mm thick electro-plating.

The enclosures may be supplied in natural finish, electro-plated, powder coated or liquid painted.  
The painting thickness does not exceed 0.18 mm.

**Installation instructions**

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



(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 18ATEX0114 U**

Issue No. **0**

(16) **Report Number**

No. NL/DEK/ExTR19.0013/00.

(17) **Schedule of Limitations**

1. The ambient temperature range depends on the model (with or without glass window), the pressure applied during the routine overpressure test and on the glass window thickness.
2. For enclosures provided with a powder coating or liquid painting and intended for use in Group III applications, the user shall minimize the risk from electrostatic discharge by suitable selection and installation.
3. The maximum number of apertures, their maximum sizes and their positions are specified in the instruction manual IM.TBE.U
4. Oil-filled circuit-breakers and contactors shall not be used.
5. The content of the TBE enclosure may be placed in any arrangement provided that an area of at least 20 % (Group IIB) or 40 % (Group IIC) of each cross-sectional area remains free. Separate relief areas may be aggregated provided that each area has a minimum dimension in any direction of 12.5 mm.
6. The threaded flame path of the cover is more than required by EN 60079-1. Contact the manufacturer for information on the dimensions of the flameproof joints.

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR19.0013/00.

(20) **Certificate history**

Issue 0 - 222966700      initial certificate