

CERTIFICATE

(1) Type Examination

(2) **Product intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) Type Examination Certificate Number: **DEKRA 03ATEX1397 X** Issue Number: **4**

(4) Product: **Junction Box TB100 series, TA100831 series and models AJB641SX and AJB841SX**

(5) Manufacturer: **Mettler-Toledo, GmbH**

(6) Address: **Im Langacher 44, CH-8606, Greifensee, Switzerland**

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

(8) DEKRA Certification B.V., 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 Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential test report no. 215998900/2, issue 3.

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

EN 60079-0 : 2012 + A11 : 2013
EN 60079-11 : 2012

EN 60079-15 : 2010
EN 60079-31 : 2014

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 Type Examination Certificate relates only to the design and construction of the specified product and not to the manufacturing process and its monitoring.

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



II 3 G Ex ic IIC T4 Gc
II 3 G Ex nA IIC T4 Gc
II 3 D Ex tc IIIC T70 °C ... T90 °C Dc

Date of certification: 25 June 2018

DEKRA Certification B.V.

L.G. van Schie
Certification Manager

(13) **SCHEDULE**

(14) **to Type Examination Certificate DEKRA 03ATEX1397 X**

Issue No. 4

(15) **Description**

The Junction Box TB100 series, the Junction Box TA100831 series and models AJB641SX and AJB841SX provide connection of load cells to an interface.
The connection means (and electronics where applicable) are fitted in a stainless steel enclosure.

Ambient temperature range -20 °C to +60 °C.

The specified temperature T 70 °C or T 90 °C, for application in explosive atmospheres caused by air/dust mixtures, is based upon an ambient temperature of 40 °C or 60 °C respectively.

The enclosures provide a degree of protection of IP65 in accordance with EN 60079-0.

Electrical data

Models in type of protection Ex ic:

Signal and supply circuits (except models TB100777 and ,TB100778):
in type of protection intrinsic safety Ex ic IIC, only for connection to intrinsically safe circuit, with the following maximum total values (combining the parameters of all circuits):
 $U_i = 30 \text{ V}$; $I_i = 1 \text{ A}$; $C_i = 0$; $L_i = 0$.

Signal and supply circuits of models TB100777 and TB100778:
in type of protection intrinsic safety Ex ic IIC, only for connection to intrinsically safe circuit, with the following maximum total values (combining the parameters of all circuits):
 $U_i = 30 \text{ V}$; $I_i = 1 \text{ A}$; $P_i = 2 \text{ W}$; $C_i = 0$; $L_i = 0$.

Signal and supply circuits of models AJB641SX and AJB841SX:
in type of protection intrinsic safety Ex ic IIC, only for connection to a certified intrinsically safe circuit, with the following maximum total values (combining the parameters of all circuits):
 $U_i = 10,5 \text{ V}$; $I_i = 500 \text{ mA}$; $C_i = 0$; $L_i = 0$.

Signal and supply circuits of all models:
in type of protection intrinsic safety Ex ic IIC; the maximum values of U_o , I_o , C_o and L_o are determined by the combined parameters of all the interface circuits connected to the Junction Box.

From the safety point of view circuits (except for models AJB641SX and AJB841SX) shall be considered to be connected to earth.

Models in type of protection Ex nA or Ex tc:

Signal and supply circuits:
Maximum 30 V and 1 A. The applicable combination of the voltage and current to and from the Junction Box is determined by the interface circuits connected to the Junction Box.

Installation instructions

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

(13) **SCHEDULE**

(14) **to Type Examination Certificate DEKRA 03ATEX1397 X**

Issue No. 4

(16) **Report Number**

No. 215998900/2, issue 3.

(17) **Specific conditions of use**

For the ambient temperature range see (15).

The Junction Boxes shall be installed in such a way that the risk of mechanical danger is low.

For applications in explosive atmospheres caused by dust, electrostatic charges of the marking label on the enclosure shall be avoided.

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. 215998900/2, issue 3.

(20) **Certificate history**

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|---------------------|---|
| Issue 0 - 203084300 | Initial certificate |
| Issue 1 - 206095300 | Revised construction for Junction Box TB100 Alternate model names |
| Issue 2 - 210470000 | Addition of Junction Box models TA100831. Evaluation according to updated standards editions |
| Issue 3 - 215998900 | Addition of models AJB641SX and model AJB841SX. Evaluation according to updated standards editions . |
| Issue 3 - 216946100 | Report update without change to the certificate |
| Issue 4 - 381953600 | Change of manufacturer. Updated entity parameters and removal of earth ground restriction for models AJB641SX and model AJB841SX. |