



Italia

CERTIFICATE

[1] **EU-TYPE EXAMINATION CERTIFICATE**

[2] **Equipment or Protective System intended for use
in potentially explosive atmospheres
Directive 2014/34/EU**

[3] EU-Type Examination Certificate number:

TÜV IT 17 ATEX 056 X

[4] Equipment or Protective System: Increased Safety Junction Box Type: SXTB-□□-□ Series

[5] Manufacturer: Shimada Electric Co., Ltd.

[6] Address: 2-29-6, Nakaikagami Ota-ku, Tokyo, 146-0081
Japan

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] TÜV Italia, notified body no. 0948 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 report no. R 17 EX 042

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

EN 60079-0: 2012+A11:2013 EN 60079-7: 2015 EN 60079-11: 2012 EN 60079-31: 2014

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe 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:



II 2 G Ex eb IIC T6...T5 Gb

II 1 G Ex ia IIC T6...T5 Ga

II 2 D Ex tb IIIC T80°C...T95°C Db

This certificate may only be reproduced in its entirety and without any change, schedule included:

Issue date: 23.07.2018



PRD N° 081B

Membro degli Accordi di Mutuo Riconoscimento
EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual
Recognition Agreements



TÜV Italia S.r.l.
Notified Body N° 0948

Alberto Carelli
Alberto Carelli

**Industry Service - Real Estate & Infrastructure
Managing Director**

TÜV Italia has been authorized by Italian government to operate as notified body for the certification of equipment or protective system intended for use in potentially explosive atmospheres. This document is not valid without official signature and logo. The internal reference code is 722146541_5.



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SCHEDULE

[14]

**EU-TYPE EXAMINATION CERTIFICATE
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Certificate History

Revision:	Description:	Report no:	Issue Date:
-	First Emission	R 17 EX 042	23.07.2018

[15] **Description of equipment**

The Increased Safety Junction boxes of type SXTB-□□-□ Series are made of SUS 304, SUS 316, SUS316L and C3713. The degree of protection IP66 is obtained by Chloroprene Rubber or Silicon Rubber mounted in the joint between cover and enclosure. The earth terminal gasket is made of Nitrile Polymer or Silicon Rubber. The apparatus is designed in accordance with the requirements of the types of protection "eb", "ia" and "tb". They comply with guideline 2014/34/EU. The empty junction box is also qualified to have the certification LCIE 12 ATEX 3073 U / IECEx LCIE 12.0022U.

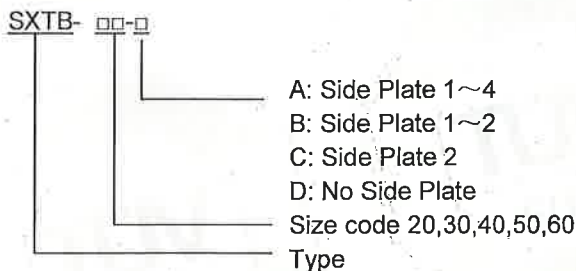
The Increased Safety Junction Box has Metric threaded or NPT threaded entries. Male terminal and female terminal blocks are mated in the enclosure.

The covers are equipped with the following closing mechanism: Fixing Screw, Multi Hinge.

The junction boxes with the types of protection "eb" and "tb" can be used in hazardous areas zone 1, 2, 21 and 22 according to the certified max. surface / ambient temperature. The junction boxes with the types of protection "ia" can be used in hazardous areas zone 0 according to the certified max. surface / ambient temperature.

Furthermore, the junction boxes feature connection shall be observed by the manufacture's documentation.

Type



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The Flameproof Junction Box sizes are as follow:

Type	Size(mm)
SXTB-20	214×214×165
SXTB-30	314×314×205
SXTB-40	414×414×206
SXTB-50	514×514×206
SXTB-60	614×614×206

Rated characteristics

Ambient temperature: -50°C ~ + 40°C (T6, T80°C)

-50°C ~ + 55°C (T5, T95°C)

-20°C ~ + 40°C (T6, T80°C)

-20°C ~ + 55°C (T5, T95°C)

Rated voltage: max.880V

Rated current: max.90A

Conductor cross section: max. 300mm²

IS: max. Ui=45V, Ii=3A

IP: 66

These values are maximum values. The actual electrical values are determined by the built-in terminals. The manufacturer specifies the rated values in the context of these maximum values and ensures compliance with the maximum surface temperature of the equipment and the permissible operating temperature of the terminals. The actual rated electrical values are indicated on the individual marking plates and in the manufacturer's instructions.

Warning label

Do not open when energized.

Do not open when an explosive atmosphere may be present.

When the junction box is used in the intrinsically safe electric circuit, it shall comply with the intrinsic safety requirements.

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[16] **Report no. R 17 EX 042**

Routine tests

Dielectric test as Clause 7.1 of EN 60079-7: 2015.

[17] **Special conditions for safe use**

1. When the junction boxes are used as protection type Ex ia, they shall only be connected using intrinsically safe circuits.
2. When the junction boxes are used as Ex ia and installed in a Zone 0, the enclosure should be installed in a way to avoid an ignition hazard due to impact or friction.
3. The cable entry holes must be connected by means of suitable cable entry devices and which are covered by a separate conformity ATEX certificate with same explosion protection properties as the certification and in minimum IP66.
4. The unused entry holes must be blanked by means of suitable blanking element and which are covered by a separate conformity ATEX certificate with same explosion protection properties as the certification and in minimum IP66.

[18] **Essential Health and Safety Requirements**

Assured by compliance with the standards set out in the [9].

[19] **Drawings and Documents**

Listed documents (prot. 722146541_5)

Title:	Description:	Pages:	Rev:	Date:
BB21336-A1	INCREASED SAFETY TYPE JUNCTION BOX	1	3	2018-06-25
BB21336-A3	INCREASED SAFETT TYPE JUNCTION BOX	1	0	2018-04-18
BB21336-A4	INCREASED SAFETY TYPE JUNCTION BOX	1	0	2018-04-18
BB21336-A5	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21336-A6	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21336-A7	CABLE GLANDS ATTACHMENT	1	0	2018-04-18

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BB21336-A8	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21336-A9	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21336-A10	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21336-A11	CABLE GLANDS INTERVAL TABLE	1	0	2018-04-18
BB21336-A12	CABLE GLANDS INTERVAL TABLE	1	0	2018-04-18
BB21336-A13	SIDE PLATE TABLE	1	0	2018-04-18
BB21330-A11	EARTH TERMINAL	1	0	2018-04-18
BB21330-A13	CABLE GLANDS INTERVAL TABLE	1	1	2018-05-01
BB21337-A1	INCREASED SAFETY TYPE JUNCTION BOX	1	3	2018-06-25
BB21337-A3	INCREASED SAFETY TYPE JUNCTION BOX	1	0	2018-04-18
BB21337-A4	INCREASED SAFETY TYPE JUNCTION BOX	1	0	2018-04-18
BB21337-A5	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21337-A6	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21337-A7	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21337-A8	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21337-A9	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21337-A10	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21337-A11	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21337-A12	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21338-A1	INCREASED SAFETY TYPE JUNCTION BOX	1	3	2018-06-25
BB21338-A3	INCREASED SAFETY TYPE JUNCTION BOX	1	0	2018-04-18
BB21338-A4	INCREASED SAFETY TYPE JUNCTION BOX	1	0	2018-04-18

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BB21338-A5	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21338-A6	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21338-A7	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21338-A8	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21338-A9	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21338-A10	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21338-A11	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21338-A12	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21339-A1	INCREASED SAFETY TYPE JUNCTION BOX	1	3	2018-06-25
BB21339-A3	INCREASED SAFETT TYPE JUNCTION BOX	1	0	2018-04-18
BB21339-A4	INCREASED SAFETY TYPE JUNCTION BOX	1	0	2018-04-18
BB21339-A5	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21339-A6	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21339-A7	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21339-A8	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21339-A9	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21339-A10	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21339-A11	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21339-A12	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21340-A1	INCREASED SAFETY TYPE JUNCTION BOX	1	3	2018-06-25
BB21340-A3	INCREASED SAFETY TYPE JUNCTION BOX	1	0	2018-04-18

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BB21340-A4	INCREASED SAFETY TYPE JUNCTION BOX	1	0	2018-04-18
BB21340-A5	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21340-A6	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21340-A7	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21340-A8	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21340-A9	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21340-A10	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21340-A11	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
BB21340-A12	CABLE GLANDS ATTACHMENT	1	0	2018-04-18
SXTB-00 Clarify the document	SXTB-00	5	0	2018-05-02
TS10139E	SXTB-00 Operating instructions	47	4	2018-06-29
Material Report	NBR	1	0	2018-04-18
Material data sheet	Metal	5	0	2018-02-07
Material Report	SI	1	0	2018-04-18
Material Report	CR	1	0	2018-04-18
Nameplate Material Report	Plate material laboratory report note	1	0	2018-03-21
Double face tape MSDS	Material safety data sheet (MSDS)	2	0	2001-03-01
EU Declaration of Conformity (draft version)	EU Declaration of Conformity Rev01	2	01	2018-05-09

One copy of all documents is kept in TÜV Italia files.

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