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: **EESF 18 ATEX 069X**

4. Product: **Junction boxes**

   Certified types: **SHORV..., SHORVA..., KKVA...**

5. Manufacturer: **"ZAVOD GORELTEX" Co. Ltd.**

6. Address: **195176, Saint Petersburg, Revolutsii road, 18, lit. A**

   Russian Federation

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

8. Eurofins Expert Services Oy, Notified Body number 0537, 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. RU/CCVE/ExTR18.0009/00

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

   EN 60079-0 (2012) **EN 60079-1 (2014)** **EN 60079-31 (2014)**

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:

II 2 G	**Ex db IIB T6...T4 Gb**
II 2 G	**Ex db IIB+H_2 T6...T4 Gb**
II 2 G	**Ex db IIC T6...T4 Gb**
II 2 D	**Ex tb IIIC T65 °C...T120 °C Db**
	IP66/IP67

Espoo, 7.11.2018
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13. **Schedule**

14. **EU-Type Examination Certificate EESF 18 ATEX 069X**

15. **Description of Product**

Junction boxes are referred to stationary equipment. Junction boxes are intended for wiring, connection and distribution of cables and wires of AC or DC circuit at various facilities.

Junction boxes are manufactured on the base of certified flameproof enclosures types SHORV..., SHORVA..., KKVA....

Junction boxes types SHORV... are rectangular flameproof enclosures which consist of the cover and the housing with a flanged flameproof joint, fastened with screws. The cover and the housing are made of aluminum-silicon alloy (SHORV...) with coating or stainless steel (SHORV-N...). Screws are made of stainless steel.

Junction boxes type SHORVA... are square flameproof enclosures, which consist of the cover and the housing with a threaded flameproof joint. The cover and the housing are made of aluminum-silicon alloy with coating.

The covers and the housings of the enclosures of types SHORVA ... may be provided with an inspection window made of tempered glass sealed with a sealant.

Type KKVA... junction boxes are cylindrical flameproof enclosures which consist of the cover and the housing with a threaded flameproof joint. The cover and the housing are made of aluminum-silicon alloy with coating.

The walls of the housing and the cover may have threaded entries for the input of cables into the junction box.

Ground bolts installed on the housing of the junction boxes, additional ground terminals and/or bus bars can be used as ground components.

Structure of designation of the junction boxes, technical characteristics, dimension types, the entries, their position on the equipment, the permitted number and thread form of threaded entries are specified in LGSA.1.008.2018 and LGSA.1.007.2018.

Dimension types of junction boxes depends on the dimension types of the applied enclosures.

See annex for further description.

16. **Report Number**

RU/CCVE/ExTR18.0009/00

17. **Specific Conditions of Use**

1) it is prohibited to use type SHORV-N... junction boxes with Ex db IIC T6...T4 Gb explosion-proof marking in explosive mixture of acetylene with air;

2) the cable glands and other devices which can be mounted on the junction boxes shall be subject to separate certification as Ex-equipment and shall not invalidate the type of protection and degree of protection IP and correspond to the connecting thread, size and type of the inserted cable. To guarantee the degree of protection IP66 or IP67 the installation of the threaded coupling accessories shall be performed in accordance with the installation instructions of these accessories;

3) the conditions of the installation and use of the junction boxes specified in the Operation, safety and maintenance manual of the manufacturer shall be strictly respected.

18. **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed at item 9.

19. **Drawings and Documents**

Drawings and documents are listed in the confidential report.

Annex

Structure of designation of junction boxes types SHORV..., SHORV-N....

X1X2(X3X4-X3X4-...)-X5X6(X7) -X5X6(X7)-.../X8, where

X1 – product name;

X2 – code of size of product's enclosure (in accordance with the Manual LGSA.1.007.2018);

X3 – number of terminal clamps (if any);

X4 – type of terminal clamp (if any);

X5 – number of cable glands (if any);

X6 – type of cable gland (if any);

X7 – side of cable gland location (if any, in accordance with the Manual LGSA.1.007.2018);

X8 – options, accessories and versions (in accordance with the Manual LGSA.1.007.2018);

The junction boxes can have additional designation "QFM..." or "UVG..." in accordance with "ZAVOD GORELTEX" Co. Ltd. classifier.

Technical data

Description of parameters	Value
Maximum rated voltage	1000 VAC 250 VDC
Maximum rated current	415 A
Maximum ambient temperature range:	-60 °C up to +60 °C*
Ingress protection degree in accordance with IEC 60529	IP66/IP67

* Minimum minus and maximum plus values of ambient temperature range for all junction boxes are set by the manufacturer with consideration of the service temperature of applied components.

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Structure of designation of junction boxes type SHORVA….

X1X2-X3(X4X5-X4X5…)-X6X7(X8) -X6X7(X8)…/X9, where

X1 – product name;

X2 – code of size of product's enclosure (in accordance with the Manual LGSA.1.008.2018);

X3 – code of window size (for products with window, if any);

X4 – number of terminal clamps (if any);

X5 – type of terminal clamp (if any);

X6 – number of cable glands (if any);

X7 – type of cable gland (if any);

X8 – side of cable gland location (if any, in accordance with the Manual LGSA.1.008.2018);

X9 – options, accessories and versions (if any, in accordance with the Manual LGSA.1.008.2018);

The junction boxes can have additional designation "QFM…" or "UVG…" in accordance with "ZAVOD GORELTEX" Co. Ltd. classifier.

Technical data

Description of parameters	Value
Rated voltage, max	1000 VAC 250 VDC
Rated current, max	232 A
Maximum ambient temperature range:	-60 °C up to +85 °C*
Ingress protection degree in accordance with IEC 60529	IP66/IP67

* Minimum minus and maximum plus values of ambient temperature range for all junction boxes are set by the manufacturer with consideration of the service temperature of applied components.

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Structure of designation of junction boxes type KKVA....

X1-X2X3X4X5X6(X7X8-X7X8-...)-X9(X10)-.../X11, where

X1 – product name;

X2 – number of holes;

X3 – type of mounting;

X4 – code of dimension type of product's enclosure (in accordance with the Manual LGSA.1.008.2018);

X5 – code of thread type;

X6 – thread size;

X7 – number of terminal clamps (if any);

X8 – type of terminal clamp (if any);

X9 – type of cable gland (if any);

X10 – side of cable gland location (if any);

X11 – options, accessories and versions (if any, in accordance with the Manual LGSA.1.008.2018);

The junction boxes can have additional designation "QFM..." or "UVG..." in accordance with "ZAVOD GORELTEX" Co. Ltd. classifier.

Technical data

Description of parameters	Value
Rated voltage, max	1000 VAC 250 VDC
Rated current, max	125 A
Maximum ambient temperature range:	-60 °C up to +85 °C*
Ingress protection degree in accordance with IEC 60529	IP66/IP67

* Minimum minus and maximum plus values of ambient temperature range for all junction boxes are set by the manufacturer with consideration of the service temperature of applied components.