

1. **EU-TYPE EXAMINATION CERTIFICATE**

2. **Component for use as a part of an Equipment or Protective System Intended for use in Potentially explosive atmospheres Directive 2014/34/EU**

3. EU-Type Examination Certificate Number: **EESF 18 ATEX 062U Issue 1**

4. Product: **Empty flameproof enclosures**

Certified types: **SHORV... and PKIV...**

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

6. Address: **Saint-Petersburg, Revolutsii road, 18, lit. A Russian Federation**

7. This component 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/ExTR16.0006/04, RU/CCVE/ExTR16.0006/03, RU/CCVE/ExTR16.0006/02, RU/CCVE/ExTR16.0006/01 and RU/CCVE/ExTR16.0006/00.

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. The sign "U" after the certificate number indicates that this certificate is a component certificate and it may be used as a basis for certification of an equipment or a protective system.

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 2G Ex db IIB + H₂ Gb
II 2G Ex db IIC Gb
II 2D Ex tb IIIC Db

-60 °C ≤ T_a ≤ +60 °C
IP66/IP67

Espoo, 18.2.2019
Eurofins Expert Services Oy



Jenni Hirvelä
Expert



Riku Vuorinen
Business Development Manager

This document is digitally signed.



13. **Schedule**

14. **EU-Type Examination Certificate EESF 18 ATEX 062U Issue 1**

15. **Description of Product**

Empty enclosures types SHORV..., SHORV-N... are rectangular flameproof enclosures consisting of a cover and a housing with a flanged joint connected by screws. The cover and the housing are made of aluminium-silicon alloy (SHORV...) or stainless steel (SHORV-N...), the screws are made of stainless steel. The enclosures of aluminium-silicon alloy are coated with powder paint.

Empty enclosures type PKIV... are rectangular or square flameproof enclosures consisting of a cover and a housing with a flanged joint connected by screws. The cover and the housing are made of aluminium-silicon alloy, the screws are made of stainless steel. The enclosures are coated with powder paint.

Grounding elements of the empty flameproof enclosures types SHORV..., SHORV-N..., PKIV... are installed inside and outside the housing and on the internal surface of the cover. The walls of the housing and the cover may have threaded holes for mounting of cable glands, controls and other. The enclosures can be installed indoors and outdoors.

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

Sealing ring between the housing and the cover shall be used for provision of IPX7 for empty enclosures of types SHORV..., SHORV-N..., PKIV...

Report Number

RU/CCVE/ExTR16.0006/04, RU/CCVE/ExTR16.0006/03, RU/CCVE/ExTR16.0006/02, RU/CCVE/ExTR16.0006/01 and RU/CCVE/ExTR16.0006/00

16. **Schedule of Limitations**

The Schedule of Limitations is further described in the Annex to this certificate.

17. **Essential Health and Safety Requirements**

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

18. **Drawings and Documents**

Drawings and documents are listed in the confidential report.

19. **Certificate History**

Certificate/Issue	Date	Change
VTT 17 ATEX 047U	19.9.2017	Original certificate
VTT 17 ATEX 047U Issue 1	12.7.2018	Added additional sizes of empty enclosures and IPX7 ratings. Change of the Notified Body's name.
EESF 18 ATEX 062U	12.10.2018	Additional sizes of empty enclosures and additional designs of empty enclosures with glass windows were considered
EESF 18 ATEX 062U Issue 1	15.2.2019	Added additional sizes of empty enclosures and additional designs of empty enclosures with glass windows is considered.

Annex

Enclosure symbol structure:

Empty enclosures type SHORV...

X1	X2	X3	-X4
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Code of window size (if applicable) – see Table 1;

Dimension type of enclosure – see Table 2;

Material:
no mark – aluminum-silicon alloy;
«-N» – stainless steel.

Enclosure type: SHORV...

Empty enclosures type PKIV...

X1	X2	X3	-X4
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Code of window size (if applicable) – see Table 1;

Dimension type of enclosure – see Table 2;

Operational environment:
A – is acceptable for use in acetylene environment;
no marks – is not acceptable for use in acetylene environment.

Enclosure type: PKIV...

Table 1 – Codes of window sizes

Enclosure type	Code of window size
SHORV...	O0505
	O1508
	O2508
	O1525
	O2515
	O2610
	O3020
	O2030
	O1515
PKIVA...	O05
	O3212

Table 2 – Dimension type of SHORV..., PKIV... series enclosures

SHORV...	SHORV-N...	PKIV...
281811	281811	101008
281813*	312120	111112
302021	372920	161008
362821	372926	148
362827	432221	211108
422221	563823	491908**
423222	563828	
423229	644433	
573926		
573931		
654526		
654533		
725224		
725235		
764323		
896735		
896745		
1045839		
1077740		

* - Used only as empty enclosure with window SHORV281813-O0505.

** - Used only as empty enclosure with window PKIVA491908-O3212.

Model identification:

SHORV302021, SHORV362821, SHORV362827, SHORV281811, SHORV422221, SHORV654526, SHORV654533, SHORV725224, SHORV725235, SHORV896735, SHORV896745, SHORV423229, SHORV423222, SHORV573931, SHORV573926, SHORV1077740, SHORV1045839, SHORV281813-O0505, SHORV302021-O1508, SHORV362821-O2515, SHORV362827-O2515, SHORV422221-O2508, SHORV362821-O1515, SHORV573931-O1525, SHORV573926-O1525, SHORV764323-O2610, SHORV764323, SHORV423222-O3020, SHORV423229-O3020, SHORV573926-O3020, SHORV573931-O3020, SHORV644526-O3020, SHORV654533-O3020, SHORV725224-O3020, SHORV725235-O3020, SHORV896735-O3020, SHORV896745-O3020, SHORV896735-O2030, SHORV896745-O2030;

SHORV-N312120, SHORV-N372926, SHORV-N281811, SHORV-N432221, SHORV-N372920, SHORV-N563823, SHORV-N563828, SHORV-N644433;

PKIVA101008, PKIVA111112, PKIVA161008, PKIVA148, PKIVA111112-O05, PKIVA211108, PKIVA491908-O3212.

Ambient temperature range of the enclosures: from minus 60 °C to + 60 °C;

Service temperature range of the enclosures:

- with windows: from minus 60 °C to +100 °C;
- with windows (O1515, O3212): from minus 60 °C to +120 °C;
- without windows: from minus 60 °C to +150 °C.

SCHEDULE OF LIMITATIONS

1. SHORV..., SHORV-N..., PKIV... series enclosures with Ex tb IIC Db explosion-proof marking:
 - the enclosures are not intended for separate use (without installation of internal elements) in hazardous areas.
2. SHORV..., SHORV-N..., PKIV... series enclosures with the explosion protection type "flameproof enclosures "d":
 - British Standard Pipe Parallel Thread G is not applicable.
3. SHORV..., SHORV-N ... series enclosures with Ex db IIB+H₂ Gb explosion-proof marking, PKIV... series enclosures with Ex db IIC Gb explosion-proof marking:
 - the enclosures are not intended for separate use (without installation of internal elements) in hazardous areas;
 - oil-filled circuit-breakers and contactors shall not be used;
 - the content of enclosure equipment may be placed in any arrangement provided that at least 40% of cross-sectional area of the enclosure remains free;
 - separate relief areas may be aggregated provided that each area has a minimum dimension in each direction of 12.5 mm;
 - apertures in enclosures are specified on the following drawings: LGSA.302021.5.2016, LGSA.362821.5.2016, LGSA.362827.5.2016, LGSA.312120N.5.2016, LGSA.372926N.5.2016, LGSA.101008.1.2016, LGSA.111112.1.2016, LGSA.161008.1.2016, LGSA.281811.5.2016, LGSA.422221.5.2016, LGSA.654526.5.2016, LGSA.654533.5.2016, LGSA.725224.5.2016, LGSA.725235.5.2016, LGSA.896735.5.2016, LGSA.896745.5.2016, LGSA.281811N.5.2016, LGSA.432221N.5.2016, LGSA.563828N.5.2016, LGSA.563823N.5.2016, LGSA.372920N.5.2016, LGSA.423229.5.2017, LGSA.423222.5.2017, LGSA.573931.5.2017, LGSA.573926.5.2017, LGSA.1077740.5.2017, LGSA.1045839.5.2017, LGSA.644433N.5.2017, LGSA.PKIVA148.1.2018, LGSA.764323.5.2018, LGSA.281813-O.4.2018, LGSA.573926-O.4.2018, LGSA.573931-O.4.2018, LGSA.764323-O.4.2018, LGSA.111112-O.1.2018, LGSA.211108.1.2018, LGSA.491908-O.1.2018, LGSA.362821-O.4.2018; LGSA.654526-O.4.2018; LGSA.654533-O.4.2018; LGSA.725224-O.4.2018; LGSA.725235-O.4.2018; LGSA.896735-O.4.2018; LGSA.896745-O.4.2018;
4. SHORV-N... series enclosures with Ex db IIC Gb explosion-proof marking:
 - it is prohibited to use SHORV-N enclosures with Ex db IIC Gb explosion protection marking in explosive mixture of acetylene with air;
 - the enclosures are not intended for separate use (without installation of internal elements) in hazardous areas;
 - oil-filled circuit-breakers and contactors shall not be used;
 - the content of enclosure equipment may be placed in any arrangement provided that at least 40% of cross-sectional area of the enclosure remains free;
 - separate relief areas may be aggregated provided that each area has a minimum dimension in each direction of 12.5 mm;
 - apertures in enclosures are specified on the following drawings: LGSA.312120N.5.2016, LGSA.372926N.5.2016, LGSA.281811N.5.2016, LGSA.432221N.5.2016, LGSA.563828N.5.2016, LGSA.563823N.5.2016, LGSA.372920N.5.2016, LGSA.644433N.5.2017;
5. Enclosures type PKIVA111112, PKIVA111112-O05:
 - it is prohibited to use the enclosures in explosive mixture of acetylene with air without the components installed inside reducing the free internal volume up to 425 cm³.
6. Enclosures type PKIVA211108:
 - it is prohibited to use the enclosures in explosive mixture of acetylene with air without the components installed inside reducing the free internal volume up to 480 cm³.