



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx CCVE 16.0007U Issue No: 2 Certificate history:  
Status: **Current** Issue No. 2 (2018-04-28)  
Date of Issue: **2018-04-28** Page 1 of 5 Issue No. 1 (2017-04-14)  
Applicant: **"ZAVOD GORELTEX" Co. Ltd.** Issue No. 0 (2016-11-03)  
195176, Saint Petersburg, Revolutsii road, 18, lit. A  
**Russian Federation**

Equipment: **Empty flameproof enclosures types SHORV..., PKIV...**  
*Optional accessory:*

Type of Protection: **flameproof enclosure d, protection by enclosure t**

Marking:  
Ex db IIB+H<sub>2</sub> Gb  
Ex db IIC Gb  
Ex tb IIIC Db  
IP66/IP67

*Approved for issue on behalf of the IECEx  
Certification Body:*

Alexander Zalogin

*Position:*

Head of NANIO CCVE

*Signature:  
(for printed version)*

*Date:*

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**NANIO CCVE**  
**Zavod ECOMASH, VUGI Settlement**  
**Lyubertsy, Moscow region**  
**140004**  
**Russian Federation**





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Date of Issue: **2018-04-28** Page 2 of 5  
Manufacturer: **"ZAVOD GORELTEX" Co. Ltd.**  
193149, Novosaratovka township area, liter A, Vsevolozhsky district, Leningrad region  
**Russian Federation**

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

## STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

<b>IEC 60079-0 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2014-06</b> Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-31 : 2013</b> Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

## TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

### Test Report:

[RU/CCVE/ExTR16.0006/00](#)      [RU/CCVE/ExTR16.0006/01](#)      [RU/CCVE/ExTR16.0006/02](#)

### Quality Assessment Report:

[RU/CCVE/QAR16.0004/00](#)      [RU/CCVE/QAR16.0004/01](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

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 aluminum-silicon alloy (SHORV...) or stainless steel (SHORV-N...), the screws are made of stainless steel. The enclosures of aluminum-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 aluminum-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 Schedule of Limitations is further described in the Annex to this certificate.

**SPECIFIC CONDITIONS OF USE: NO**



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## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):**

### Issue 1:

- additional sizes of empty enclosures were considered: SHORV281811, SHORV422221, SHORV654526, SHORV654533, SHORV725224, SHORV725235, SHORV896735, SHORV896745, SHORV-N281811, SHORV-N432221, SHORV-N372920, SHORV-N563823, SHORV-N563828;
- new revisions of the drawings for the following models were considered: PKIVA101008, PKIVA111112, PKIVA161008, SHORV302021, SHORV362821, SHORV362827, SHORV-N372926, SHORV-N312120;
- the changes of the drawings relate to the designation of the materials of empty enclosures.

Refer to the Annex for the details of the changes.

### Issue 2:

- additional sizes of empty enclosures were considered: SHORV423222, SHORV423229, SHORV573926, SHORV573931, SHORV1045839, SHORV1077740, SHORV-N644433;
- update to manufacturing address;
- update to drawings reflecting changes to IPX7 marking and some other changes;
- add IPX7 ratings.



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**Additional information:**

See attached Annex.

**Annex:**

[Annex to IECEX \\_CCVE\\_16 0007U\\_2\\_2017.pdf](#)



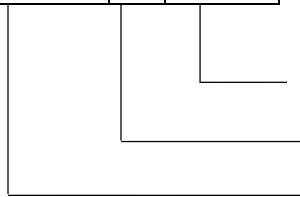
**Annex to IECEx CCVE 16.0007U**

**Issue No. 2**

**Date: 2018-04-28**

Enclosure symbol structure:

SHORV	X	XXX
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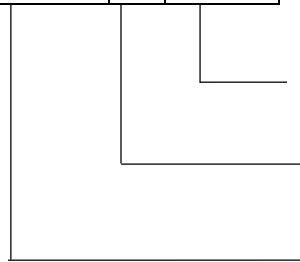


Enclosure standard size – see Table 1

Material: no marks – aluminum-silicon alloy, N – stainless steel

Enclosure type: SHORV...

PKIV	X	XXX
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Enclosure standard size – see Table 1

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

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

Model identification: SHORV302021, SHORV362821, SHORV362827, SHORV-N312120, SHORV-N372926, PKIVA101008, PKIVA111112, PKIVA161008, SHORV281811, SHORV422221, SHORV654526, SHORV654533, SHORV725224, SHORV725235, SHORV896735, SHORV896745, SHORV-N281811, SHORV-N432221, SHORV-N372920, SHORV-N563823, SHORV-N563828, SHORV423229, SHORV423222, SHORV573931, SHORV573926, SHORV1077740, SHORV1045839, SHORV-N644433.

Ambient temperature range: from minus 60°C to +60°C

Service temperature range: 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 ... series enclosures with Ex db IIB+H<sub>2</sub> 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.
3. 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.
4. Enclosures type PKIVA111112:
  - 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 cm<sup>3</sup>.