



1. **EU-TYPE EXAMINATION CERTIFICATE**
2. **Equipment or Protective System Intended for use in Potentially explosive atmospheres Directive 2014/34/EU**
3. Reference: **VTT 17 ATEX 047U Issue 1**
4. Component: **Empty flameproof enclosures**  
 Certified types: **SHORV... and PKIV...**
5. Manufacturer: **ZAVOD GORELTEX Co. Ltd.**  
**Saint-Petersburg, Revolutsii road, 18, lit. A**  
**Russian Federation**
6. This component and any acceptable variations thereto are specified in the schedule and possible supplement(s) to this Certificate and the documents therein referred to.
7. Eurofins Expert Services Ltd, notified body number 0537, in accordance with Article 21 of the Directive 2014/34/EU of February 2014, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective system intended for use in potentially explosive atmospheres given in Annex II to the Directive.  
  
 The examination and test results are recorded in confidential report nos. RU/CCVE/ExTR16.0006/02, RU/CCVE/ExTR16.0006/01 and RU/CCVE/ExTR16.0006/00
8. 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)**
9. The sign "U" after the certificate number indicates that this Certificate is a component certificate and it may be used as a base for a complete certification of electrical equipment.
10. This EU-Type examination certificate relates only to the design, examination and tests of the specified component in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.



11. The marking of the component shall include the following:



**II 2 G Ex db IIC Gb or Ex db IIB + H<sub>2</sub> Gb**  
**II 2 D Ex tb IIIC Db**  
**-60 °C ≤ T<sub>a</sub> ≤ +60 °C**  
**IP66/IP67**

Espoo, 12.7.2018  
Eurofins Expert Services Ltd



Tony Myllylä  
Expert



Risto Sulonen  
Senior Expert



12.

**Schedule**

13.

**EU-TYPE EXAMINATION CERTIFICATE VTT 17 ATEX 047U Issue 1**

14.

Description of component

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.

15.

Report Nos. RU/CCVE/ExTR16.0006/02, RU/CCVE/ExTR16.0006/01 and RU/CCVE/ExTR16.0006/00

16.

The Schedule of Limitations

See Supplement 1

17.

Essential Health and Safety Requirements

Met by the compliance with the standards: EN 60079-0 (2012), EN 60079-1 (2014) and EN 60079-31 (2014)

Certificate history

Issue	Date	Comment
-	19.9.2017	Prime certificate
1	12.7.2018	Added additional sizes of empty enclosures and IPX7 ratings. Change of the Notified Body's name.

Espoo, 12.7.2018  
**Eurofins Expert Services Ltd**



Tony Myllylä  
Expert

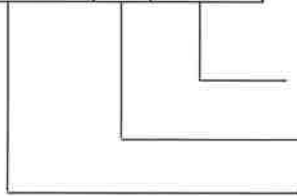


Risto Sulonen  
Senior Expert

**SUPPLEMENT 1**

Enclosure symbol structure:

SHORV	X	XXX
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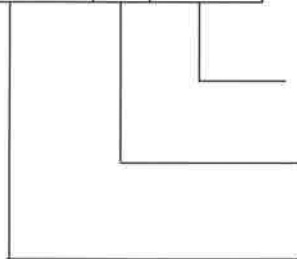


Enclosure standard size – see Table 1

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>.