

IECEx Certificate of Conformity

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INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx CCVE 19.0002X Issue No: 0 Certificate history:

Issue No. 0 (2019-02-22)

Status: Current

Date of Issue: 2019-02-22

Applicant: "ZAVOD GORELTEX" Co. Ltd.

195176, Saint Petersburg, Revolutsii road, 18, lit. A

Russian Federation

Equipment: Control and command stations PKIE... series

Optional accessory:

Type of Protection: flameproof enclosures "d", increased safety "e", encapsulation "m", dust ignition protection by enclosure "t"

Marking:

Ex db eb IIC T6...T4 Gb Ex eb mb IIC T6...T4 Gb Ex db eb mb IIC T6...T4 Gb Ex tb IIIC T85 °C...T135 °C Db

IP54/IP66

Approved for issue on behalf of the IECEx Alexander Zalogin

Certification Body:

Position: Head of CB 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.

Certificate issued by:

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





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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:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements

Edition:6.0

IEC 60079-1: 2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:7.0

IEC 60079-18 : 2014 Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"

Edition:4.0

IEC 60079-31 : 2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

IEC 60079-7: 2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

Edition:5.0

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/ExTR19.0004/00

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:

Control and command stations PKIE... series can be used as control and indication devices, for control of various electrical equipment.

Control and command stations PKIE... series can be stationary or portable equipment depending on the field of application.

Control and command stations PKIE... series are made on the base of certified enclosures made of aluminum alloy (PKIE...), stainless steel (PKIE-N...) and mild steel (PKIE-M...). Control and command stations PKIE... series are made on the basis of certified enclosures with or without windows.

The housing and the cover may have entries for the installation of cable glands and Ex-components.

Structure of designation, technical characteristics, dimension types and temperature class of control and command stations PKIE... series are specified in the operating, safety and maintenance manual LGSA.1.022.2019.

Various certified electrical devices of corresponding type of explosion protection and IP degree of protection can be included into the structure of control and command stations PKIE... series.

Ambient temperature range and other additional information is given in the Annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1) Cable glands and other devices which can be installed are subject to a separate certification as Ex-equipment and they shall not invalidate the type of protection and IP degree of protection and shall correspond to connecting thread, its size and type of inserted cable.
- 2) Control and command stations PKIE-N... series with windows were tested with low level of mechanical impact.

Annex:

19.0002X Annex.pdf

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



Annex to IECEx CCVE 19.0002X

Issue No. 0

Structure of designation of control and command stations PKIE... series

 $X1X2X3 - X4 - X5X6 \dots X5X6 - X7X8(X9) - X7X8(X9) / X10$, where

 $\langle X1 \rangle$ – product name: PKIE;

«X2» – material: no mark – aluminum alloy; «-N» – stainless steel; «-M» - mild steel;

 $\langle X3 \rangle$ – code of size of product's enclosure (refer to table 2);

 $\langle\langle X4\rangle\rangle$ – code of window size (for products with window, refer to table 3);

 $\langle X5 \rangle$ – number of control element (if any);

 $\langle X6 \rangle$ – type of control element (if any);

 $\langle X7 \rangle$ – number of cable glands (if any);

 $\langle X8 \rangle$ – type of cable gland (if any);

«X9» – side of cable gland location (if any);

«X10» - options, accessories and versions, (if any, in accordance with the operating, safety and maintenance manual LGSA.1.022.2019);

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

Table 1 – Technical characteristics

Description of parameters	Value	
Ex marking	Ex db eb IIC T6T4 Gb	
	Ex eb mb IIC T6T4 Gb	
	Ex db eb mb IIC T6T4 Gb	
	Ex tb IIIC T85 °CT135 °C Db	
Maximum voltage	1100 VAC/400 VDC	
Maximum current	291 A	
Maximum ambient temperature range	- 60 °C up to + 85°C*	
Degree of protection (IEC 60529)	IP54/IP66	

^{*} Minimum minus and maximum plus values of ambient temperature range for all control and command station are set by the manufacturer with consideration of the service temperature of applied components.

Maximum technical characteristics and all possible explosion protection markings are given in the table 1. Actual values and selection of explosion protection marking depend on the configuration of the control and command station: installed control and indication elements and terminals depending on the rated current in accordance with the operating, safety and maintenance manual LGSA.1.022.2019.

The technical characteristics of the terminals permitted for installation is given the operating, safety and maintenance manual LGSA.1.022.2019.

Separately certified cable glands and plugs as Ex-equipment can be used provided that they do not invalidate the type of protection, IP degree of protection and have the appropriate connection. Maximum number of control and indication elements is in accordance with the drilling area of the enclosure of control and command station and minimum distances between components.

Table 2 – Dimension types of control and command stations enclosures in accordance with the certificate IECEx CCVE 18.0013U

KSRV	KSRV-N	KSRV-M
111109	111109	111109
141410	151512	151512
171109	171109	171109
202012	202012	202012
301410	231815	231815
302314	232315	232315
342421	303012	303012
513321	322312	322312
663221	342315	342315
626221	343415	343415
	402315	402315
	453415	453415
	534315	534315
	606025	606025
	806030	806030
	1008030	1008030

Table 3 – Codes of window sizes

Code of window size
O0808
O1508
O1515
O2515
O2525
O3725
O3737

Table 4 – Ex Components used for control, indication and sound alarm produced by ZAVOD GORELTEX Co. Ltd. permitted for installation:

Name of Ex Component	Certificate Number	Service temperature range
KG control buttons		-40 °C +85 °C
PG switches		
LG indicating lamps	IECEx CCVE 18.0015U	-55 °C +85 °C
PTC potentiometers		-40 °C +85 °C
PSG sirens		-60 °C +85 °C