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

Certificate No.: IECEx CCVE 18.0009X

Issue No: 1

Certificate history:
Issue No. 1 (2019-02-08)
Issue No. 0 (2018-12-06)

Status: **Current**

Date of Issue: **2019-02-08**

Applicant: **"ZAVOD GORELTEX" Co. Ltd.**
195176, Saint Petersburg, Revolutsii road, 18, lit. A
Russian Federation

Equipment: **Control stations (push buttons, switches, control and indication units) PKIV…, PPG…, KV… series**

Optional accessory:

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

Marking:

Ex db IIB T6…T4 Gb

Ex db IIB+H_2 T6…T5 Gb

Ex db IIC T6…T4 Gb

Ex db eb mb IIB T6...T4 Gb

Ex db eb mb IIB+H_2 T6...T5 Gb

Ex db eb mb IIC T6...T4 Gb

Ex tb IIIC T51˚C…T120 ˚C Db

IP54/IP66/IP67

Approved for issue on behalf of the IECEx Certification Body: Alexander Zalogin

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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-18 : 2014 Edition:4.0	Explosive atmospheres – Part 18: Equipment protection by encapsulation “m”
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*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/ExTR18.0010/00 RU/CCVE/ExTR18.0010/01

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 stations are produced based on the certified enclosures types SHORV..., PKIV..., SHORVA..., KKVA... in which certified Ex components control and indicating elements listed in the Annex can be installed.

Control stations can be stationary or portable equipment depending on the field of application.

Control stations PKIV… series can be used as push buttons, control and indication units and are intended for control of the equipment and/or local or remote indication.

Control stations PPG… series are used as switches and are intended for switching of electric circuits, specified in the Annex.

Control stations KV... series are used as control and indication units and enclosures with control and measuring device or other visualization device installed inside.

The temperature class and the maximum surface temperature is specified by the manufacturer at the nameplate depending on the actual rated current and the actual ambient temperature range.

For additional information refer to the Annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1) it is prohibited to use control stations type PKIV-N… with Ex markings Ex db IIC T6 ... T4 Gb and

Ex db eb mb IIC T6...T4 Gb in explosive mixture of acetylene with air;

2) cable glands and other devices which can be installed on control stations 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 the connecting thread, its size and type of inserted cable.

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

One new model, new designs with windows, higher supply currents and modifications of the previously certified models to include sirens were considered.

Annex:

Annex_18.0009X_1.pdf

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

Annex to IECEx CCVE 18.0009X **Issue No. 1**

Structure of designation of control station **PKIV…** series

X1X2X3X4 – X5 – X6X7 – X6X7 – … – X8X9 – X8X9 – … / X10, where

«X1» – product name: PKIV;

«X2» – operational environment: A – is acceptable for use in acetylene environment; no mark – is not acceptable for use in acetylene environment;

«X3» – material: no mark – aluminum alloy; «-N» – stainless steel;

«X4» – code of size of product's enclosure (in accordance with the Operation, safety and maintenance manual LGSA.1.009.2018, LGSA.1.010.2018);

«X5» – code of window size (for products with window, if any);

«X6» – number of control element (if any);

«X7» – type of control element (if any);

«X8» – number of cable glands (if any);

«X9» – type of cable gland (if any);

«X10» - options, accessories and versions (if any, in accordance with the Operation, safety and maintenance manual LGSA.1.009.2018 and LGSA.1.010.2018);

Technical characteristics

Control stations PKIV… produced on the base of the certified enclosures SHORV… of various materials:

Description of parameters	Value
Ex marking	Ex db IIB+H_2 T6…T5 Gb Ex db IIB T6…T5 Gb Ex db IIC T6…T5 Gb Ex db eb mb IIB+H_2 T6…T5 Gb Ex db eb mb IIB T6…T5 Gb Ex db eb mb IIC T6…T5 Gb Ex tb IIIC T51˚C…T100 ˚C Db
Maximum voltage	1000 VAC 400 VDC
Maximum current	300 A
Maximum ambient temperature range	- 60 °C up to + 60 °C
Ex-components	RG…, PG…, KG…, LG…, PSG…
Ingress protection degree in accordance with IEC 60529	IP54/IP66/IP67

Control stations PKIVA… produced on the base of the certified enclosures SHORVA… of various materials without a window:

Description of parameters	Value
Ex marking	Ex db IIC T6…T4 Gb Ex db IIB T6…T4 Gb Ex db eb mb IIB T6…T4 Gb Ex db eb mb IIC T6…T4 Gb Ex tb IIIC T51˚C…T120 ˚C Db
Maximum voltage	1000 VAC 400 VDC
Maximum current	232 A
Maximum ambient temperature range	- 60 °C up to + 85 °C
Ex-components	RG…, PG…, KG…, LG…, PSG…
Ingress protection degree in accordance with IEC 60529	IP54/IP66/IP67

Control stations PKIVA… produced on the base of the certified enclosures SHORVA… of various materials with a window:

Description of parameters	Value
Ex marking	Ex db IIC T6…T5 Gb Ex db IIB T6…T5 Gb Ex db eb mb IIB T6…T5 Gb Ex db eb mb IIC T6…T5 Gb Ex tb IIIC T51˚C…T100 ˚C Db
Maximum voltage	1000 VAC 400 VDC
Maximum current	232 A
Maximum ambient temperature range	- 60 °C up to + 65 °C
Ex-components	RG…, PG…, KG…, LG…, PSG…
Ingress protection degree in accordance with IEC 60529	IP54/IP66/IP67

Control stations PKIVA… produced on the base of the certified enclosures KKVA… of various materials:

Description of parameters	Value
Ex marking	Ex db IIC T6…T4 Gb Ex db IIB T6…T4 Gb Ex db eb mb IIB T6…T4 Gb Ex db eb mb IIC T6…T4 Gb Ex tb IIIC T51˚C…T120 ˚C Db
Maximum voltage	1000 VAC 400 VDC
Maximum current	125 A
Maximum ambient temperature range	- 60 °C up to + 85 °C
Ex-components	RG…, PG…, KG…, LG…, PSG…
Ingress protection degree in accordance with IEC 60529	IP54/IP66/IP67

Control stations PKIVA… produced on the base of the certified enclosures PKIV…

Description of parameters	Value
Ex marking	Ex db IIC T6…T5 Gb Ex db IIB T6…T5 Gb Ex db eb mb IIB T6…T5 Gb Ex db eb mb IIC T6…T5 Gb Ex tb IIIC T51˚C…T100˚C Db
Maximum voltage	400 VAC 400 VDC
Maximum current	16 A
Maximum ambient temperature range	- 60 °C up to + 60 °C
Ex-components	RG…, PG…, KG…, LG…, PSG…
Ingress protection degree in accordance with IEC 60529	IP54/IP66/IP67

Indicated values of technical characteristics are maximum values. It is permitted to use a heater installed inside the enclosure in the configuration of the control station. Actual values of technical characteristics will depend on the installed equipment and on the operating temperature of the equipment. Actual characteristics are specified by the manufacturer on the nameplate of the product. Actual characteristics cannot exceed values specified in the table above.

Structure of designation of control station **PPG….** series

X1 – X2X3 – X4X5 /X6, where

«X1» – product name: PPG;

«X2» – type of diagram (in accordance with the Operation, safety and maintenance manual LGSA.1.009.2018);

«X3» –current;

«X4» – number of cable glands (no more than two, if any);

«X5» – type of cable gland (if any);

«X6» – options, accessories and versions (if any, in accordance with the Operation, safety and maintenance manual LGSA.1.009.2018);

Technical characteristics

Description of parameters	Value
Ex marking	Ex db IIC T6…T5 Gb Ex db IIB T6…T5 Gb Ex tb IIIC T56˚C…T90˚C Db
Maximum voltage	400 VAC 400 VDC
Maximum current	80 A
Maximum ambient temperature range	- 60 °C up to + 60 °C
Ex-components	RG…, PG…
Ingress protection degree in accordance with IEC 60529	IP66/IP67

Structure of designation of control station **KV…** series

X1 – X2X3 – X4 – X5X6 / X7, where

«X1» – product name: KV;

«X2» – shortened functional purpose;

«X3» – code of size of product's enclosure;

«X4» – code of window size (for products with window, if any);

«X5» – number of cable glands (no more than two, if any);

«X6» – type of cable gland (if any);

«X7» – options, accessories and versions (if any, in accordance with the Operation, safety and maintenance manual LGSA.1.009.2018);

Technical characteristics

Description of parameters	Value
Ex marking	Ex db IIC T6…T5 Gb Ex db IIB T6…T5 Gb Ex tb IIIC T51˚C…T100˚C Db
Maximum voltage	800 VAC* 600 VDC
Maximum current	25 A*
Maximum ambient temperature range	- 60 °C up to + 60 °C
Ex-components	RG…, PG…, LG…
Ingress protection degree in accordance with IEC 60529	IP66/IP67

* Maximum values of current and voltage during overload: 50 A and 1600 V.

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