



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 CML 17.0166U Issue No: 0 Certificate history:
Issue No. 0 (2017-11-30)

Status: **Current**

Date of Issue: **2017-11-30** Page 1 of 3

Applicant: **Warom Technology Incorporated Company**
No.555, Baoqian Road, Jiading District, Shanghai, 201808
China

Equipment: **HK Control Switch**
Optional accessory:

Type of Protection: **Flameproof and Dust**

Marking:
Ex db IIC Gb
Ex tb IIIC Db

Approved for issue on behalf of the IECEx
Certification Body:

H M Amos MIET

Position:

Technical Manager

Signature:
(for printed version)

Date:

November 30, 2017

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:

Certification Management Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Manufacturer: **Warom Technology Incorporated Company**
No.555, Baoqian Road, Jiading District, Shanghai, 201808
China

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 electrical 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 60079-31 : 2013 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:

[GB/CML/ExTR17.0210/00](#)

Quality Assessment Report:

[CN/CQM/QAR07.0003/07](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The HK Control Switch comprises an internal switch, with a copper alloy operator shaft and a M16x1.5-6g threaded copper alloy replaceable sleeve cover.

The external switch consists of a Zinc alloy handle and back plate mounting bracket. The control switch is intended to be threaded into and fixed to its associated enclosure via four screws.

See Annex for full description, Conditions of Manufacture and Schedule of Limitations

SPECIFIC CONDITIONS OF USE: NO

Annex:

[Certificate Annex IECEx CML 17.0166U Issue 0.pdf](#)

Annexe to: IECEx CML 17.0166U Issue 0
Applicant: Warom Technology Incorporated
Company
Apparatus: HK Control Switch



Product Description

The HK Control Switch comprises an internal switch, with a copper alloy operator shaft and a M16x1.5-6g threaded copper alloy replaceable sleeve cover.

The external switch consists of a Zinc alloy handle and back plate mounting bracket. The control switch is intended to be threaded into and fixed to its associated enclosure via four screws.

An NRB O-ring in the groove of the handle of the control switch provides degree of protection IP66 along with an O-ring in a groove on the control switch/enclosure interface.

The control switch core is fixed to the pushbutton shaft via four M4 screws and a mounting bracket.

The control switch has the following maximum electrical ratings:

500VAC, 400VDC; 16A

Conditions of manufacture

None

The following are conditions of manufacture

- i. A routine pressure test shall be carried out on each HK Control Switch at 18 bar (1.8 MPa) for a period of at least 10 s in accordance with IEC 60079-1 clause 16.1.

Schedule of Limitations

The following is the schedule of limitations:

- i. The equipment/enclosure for which the HK Control Switch is intended to be fitted shall provide a type of protection "db" or "tb" as applicable. The flameproof joints formed by the type HK Control Switch and the equipment enclosure shall comply with IEC 60079-1:2014, Table 4 (M16x1.5-6g/6H). In addition, the equipment to which the type HK Control Switch is mounted shall be subjected to the tests for non-transmission of an internal ignition with the HK Control Switch fitted. Testing shall be in accordance with IEC 60079-1:2014.
- ii. The reference pressure of the equipment enclosure fitted with the HK Control Switch shall be not greater than 12 bar (1.2 MPa).
- iii. The flameproof joints of the HK Control Switch are not intended to be repaired. However, the HK Control switch has a non-threaded cylindrical flamepath between the copper alloy operator shaft and replaceable sleeve cover, this joint is not repairable, but if the flameproof gap exceeds 0.13mm due to wear, then the copper sleeve bush needs to be returned to the manufacturer.
- iv. The service temperature of the HK Control Switch shall not exceed -60°C to +70°C

