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 SIR 17.0052X

Issue No: 0

Certificate history:
Issue No. 0 (2019-02-11)

Status: **Current**

Date of Issue: **2019-02-11**

Applicant: **TOP HI-TECH CO., LTD.**
9F, No. 1, Zhongshan Road
Tucheng Dist.
New Taipei City, 23680
Taiwan

Equipment: **A1301 Explosion Proof Switches**

Optional accessory:

Type of Protection: **Flameproof and Dust Ignition protection by enclosure 't'**

Marking:

Ex db IIC T6 Gb
Ex tb IIIC T85°C Db
Tamb = -40°C to +55°C

Approved for issue on behalf of the IECEx Certification Body: C Ellaby

Position: Deputy Certification Manager

Signature:
(for printed version)

Date: 2019-02-11

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:

SIRA Certification Service
CSA Group
Unit 6, Hawarden Industrial Park
Hawarden, Deeside, CH5 3US
United Kingdom

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Manufacturer:	**TOP HI-TECH CO., LTD** 9F, No. 1, Zhongshan Road Tucheng Dist. New Taipei City, 23680 **Taiwan**	

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 60079-31 : 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/SIR/ExTR19.0029/00

Quality Assessment Report:

DE/TUR/QAR13.0016/02

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The A1301 Explosion Proof Switches consists of a single aluminium enclosure, fitted with a range of optional push buttons housed in the cover, and cable glands/blanking devices installed within tapered threaded side entries of the enclosure body. The enclosure incorporates a flanged flameproof joint between the cover that base, with a gasket for ingress protection. Four fasteners attach the cover and the base.

There two types of push buttons, requiring one or two switches (depending on the push button quantity/configuration), which are wire connected through the cable glands inside the enclosure. The switches are rated at 600Vac/10A or 250Vac/20A. Each of the push buttons have a base plate manufactured from aluminium and an O-ring for ingress protection. They each have a flameproof metric threaded joint depending upon the quantity of push buttons in the cover and a cylindrical joint at the button/base interface.

The cable glands/blanking devices are fitted in the side walls of the enclosure base and have tapered thread for threaded entry upon installation. They are manufactured from stainless steel (cable gland) and aluminium (blanking device). Sealing of the cable when the cable gland is installed is obtained via a sealing ring. Ingress protection is again provided by O-rings internal to the cable gland itself, and at the interface with the base of the enclosure for both cable gland and blanking devices.

Models

A1301 Explosion Proof Switches, consisting of Models:
A1301A: Flameproof enclosure with 1 x type 1 push button, fitted in the lid of the enclosure;
A1301B: Flameproof enclosure with 2 x type 1 push button, fitted in the lid of the enclosure;
A1301C: Flameproof enclosure with 1 x type 2 push button, fitted in the lid of the enclosure;
A1301D: Flameproof enclosure with 2 x type 2 push button, fitted in the lid of the enclosure.

Conditions of Manufacture

The Manufacturer shall comply with the following:

1. A routine overpressure test shall be performed on every unit (with blanking plug) manufactured in accordance with IEC 60079-1 Clause 16.1. The pressure to be applied shall be a minimum of 18 bar and this pressure shall be applied for a duration of at least 10 seconds.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Fasteners with Yield Stress ≥ 700Mpa shall be used to secure the lid.
2. Do not open while the unit is live or explosive atmospheres is present.
3. If the main enclosure is opened for maintenance, the sealing gasket shall be replaced with a new one and installed correctly according to the instruction in operation manual provided by manufacturer.
4. Refer to the instructions for the correct selection of cable gland type and size.
5. The flameproof joints are not intended to be repaired.
6. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.