



EU-TYPE EXAMINATION CERTIFICATE

Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

Certificate Number: **Sira 17ATEX1226X** Issue: **1**

Equipment: **A1301 Explosion Proof Switches**

Applicant: **TOP HI-TECH CO., LTD.**

Address: 9F, No. 1, Zhongshan Road
Tucheng Dist
New Taipei City, 23680
Taiwan (R.O.C)

This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

CSA Group Netherlands B.V., Notified Body Number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012+A11:2013

EN 60079-1:2014

EN 60079-31:2014

If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

The marking of the equipment shall include the following:



II 2GD

Ex db IIC T6 Gb

Ex tb IIIC T85°C Db

Tamb = -40°C to +55°C

Project Number 4110

Signed:

Title: Director of Operations

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CSA Group Netherlands B.V.
Utrechtseweg 310,
6812 AR, Arnhem,
Netherlands



SCHEDULE

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Issue 1

13 DESCRIPTION OF EQUIPMENT

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.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	11 February 2019	R70169548A	The release of the prime certificate.
1	31st October 2019	4110	<ul style="list-style-type: none">Transfer of certificate Sira 17ATEX1226X from Sira Certification Service to CSA Group Netherlands B.V..

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 Fasteners with Yield Stress $\geq 700\text{Mpa}$ shall be used to secure the lid.
- 15.2 Do not open while the unit is live or explosive atmospheres is present.
- 15.3 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.
- 15.4 Refer to the instructions for the correct selection of cable gland type and size.

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- 15.5 The flameproof joints are not intended to be repaired.
- 15.6 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.
- 16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)**
The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

Certificate Annexe



Certificate Number: Sira 17ATEX1226X
Equipment: A1301 Explosion Proof Switches
Applicant: TOP HI-TECH CO., LTD.

Issue 0

Drawing No.	Sheets	Rev.	Date (Sira Stamp)	Title
EX-THT-A1301-001	1 to 2	05	27 Dec 18	Universal Explosion Proof Switch Series General Drawing
EX-THT-A1301-002	1 to 5	05	27 Dec 18	Construction Check
EX-THT-A1301-003	1 to 4	12	27 Dec 18	Plate Board (Label drawings)
EX-THT-A1301-004	1 to 2	05	27 Dec 18	Tank (enclosure base)
EX-THT-A1301-005	1 to 1	06	27 Dec 18	Top Cover (Alone M25 Hole)
EX-THT-A1301-006	1 to 1	06	27 Dec 18	Top Cover (Double M25 Holes)
EX-THT-A1301-008	1 to 1	03	27 Dec 18	O-Ring
EX-THT-A1301-009	1 to 1	04	27 Dec 18	Button
EX-THT-A1301-010	1 to 1	01	27 Dec 18	Spring
EX-THT-A1301-011	1 to 1	03	27 Dec 18	O-Ring
EX-THT-A1301-012	1 to 1	03	27 Dec 18	Button Base
EX-THT-A1301-013	1 to 1	03	27 Dec 18	O-Ring
EX-THT-A1301-014	1 to 1	01	27 Dec 18	C-Clips
EX-THT-A1301-015	1 to 1	02	27 Dec 18	Nut
EX-THT-A1301-016	1 to 1	02	27 Dec 18	Socket Set M4 Screw
EX-THT-A1301-017	1 to 1	02	27 Dec 18	M6 Hexagon Screw Set
EX-THT-A1301-018	1 to 1	02	27 Dec 18	M5 Hexagon Screw Set
EX-THT-A1301-019	1 to 1	01	27 Dec 18	Fixed Plate (For Double Control System)
EX-THT-A1301-020	1 to 1	01	27 Dec 18	Fixed Plate (For Alone Control System)
EX-THT-A1301-021	1 to 1	01	27 Dec 18	Fixed Plate (For Double Thermal Circuit Breaker)
EX-THT-A1301-022	1 to 1	01	27 Dec 18	Fixed Plate (For Alone Thermal Circuit Breaker)
EX-THT-A1301-023	1 to 1	02	27 Dec 18	Control System
EX-THT-A1301-025	1 to 1	02	27 Dec 18	Control System (Thermal Circuit Breaker)
EX-THT-A1301-031	1 to 1	03	27 Dec 18	Screw Plug
EX-THT-A1301-032	1 to 1	02	27 Dec 18	M3 Screw
EX-THT-A1301-033	1 to 1	02	27 Dec 18	Body
EX-THT-A1301-034	1 to 1	01	27 Dec 18	Pressure Nut
EX-THT-A1301-035	1 to 1	01	27 Dec 18	Sleeve
EX-THT-A1301-036	1 to 1	01	27 Dec 18	Connector
EX-THT-A1301-037	1 to 1	01	27 Dec 18	Nut Plate
EX-THT-A1301-038	1 to 1	01	27 Dec 18	M4 Screw Set
EX-THT-A1301-039	1 to 1	02	27 Dec 18	O-Ring
EX-THT-A1301-040	1 to 1	02	27 Dec 18	O-Ring
EX-THT-A1301-041	1 to 1	02	27 Dec 18	O-Ring
EX-THT-A1301-042	1 to 1	02	27 Dec 18	Tube-8.5
EX-THT-A1301-043	1 to 1	02	27 Dec 18	Tube-9
EX-THT-A1301-044	1 to 1	02	27 Dec 18	Tube-10
EX-THT-A1301-045	1 to 1	01	27 Dec 18	Washer
EX-THT-A1301-046	1 to 1	01	27 Dec 18	Washer
EX-THT-A1301-047	1 to 1	01	27 Dec 18	Washer
EX-THT-A1301-048	1 to 1	03	27 Dec 18	Circuit Schematic
EX-THT-A1301-049	1 to 1	01	27 Dec 18	Cable Gland General Drawing

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