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CONFORMITÉ EUROPÉENNE

**EU - TYPE EXAMINATION CERTIFICATE**2 **Product or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 2014/34/EU – Annex III**3 EU - Type Examination Certificate No.: **TRAC15ATEX0050X (incorporating variations V1 to V6)**4 Product: **RF Galvanic isolator- iSOLATE501**5 Manufacturer: **Extronics Ltd.,**6 Address: **1 Dalton Way, Midpoint 18, Middlewich, Cheshire, CW10 0HU,  
United Kingdom**

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

8 Element Materials Technology, Notified Body number 2812, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products 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 **TRA-026495-33-00A, TRA-033665-33-00A, TRA-037061-33-00A and TRA-055876-33-01A.**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:


**EN IEC 60079-0:2018****EN 60079-11:2012****EN 60079-15:2010****EN 50303:2000**

Except in respect of those requirements listed at section 18 of the schedule.

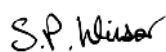
10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall include the following:

**Ex nA [Ex ia Ga] IIC T6 Gc****Ex ic [Ex ia Da] IIIC T85°C Dc****[Ex ia Ma] I** **II 3 (1) G D** **I (M1)****-40 °C ≤ Ta ≤ +80 °C**

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the Element Materials Technology Ex Certification Scheme.



S P Winsor, Certification Manager

Issue date: 2021-12-13

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CSF355-NL 5.0

**13 SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE**

**14 CERTIFICATE NUMBER TRAC15ATEX0050X (incorporating variations V1 to V6)**

**15 Description of Product**

The iSOLATE501 is a RF galvanic isolator. It is intended to allow the connection of any RF transmitter within certain power and frequency limits to any appropriate antenna using coaxial cables. The device provides galvanic isolation to frequencies in the range of 120Mhz to over 8Ghz. It provides an open circuit to DC and low frequency AC signals.

The apparatus is ATEX Category 3 equipment providing 'ia' outputs into Zone 0/20. It can also be situated in non-hazardous areas providing 'ia' outputs into 'M1' mining areas. It consists of a machined hollow box section, aluminium body with two side plates. The unit is fitted with two bulkhead mounted SMA connectors and is also fully encapsulated to form a completely sealed product.

**16 Test Report No. (as added for this issue of the certificate):** TRA-055876-33-01A.

**17 Specific Conditions of Use**

1. The RF power input to the device must be limited to defined power levels dependent on the Equipment / Gas Group:

|   |           |                  |
|---|-----------|------------------|
| Maximum safe input power, defined as in normal operation without user-settable software limits and must include antenna gain consideration. | Group I   | 6.0 W (37.7 dBm) |
|   | Group IIC | 2.0 W (33.0 dBm) |
|   | Group IIB | 3.5 W (35.4 dBm) |
|   | Group IIA | 6.0 W (37.7 dBm) |
|   | Group III | 6.0 W (37.7 dBm) |

- 2. The product must be mounted such that it is earthed before use in accordance with clause 15 in IEC 60079-0:2017.
- 3. The product shall be mounted in an IECEx / ATEX approved Ex 'n' or Ex 'e' enclosure with minimum IP54 rating while situated in hazardous gas atmospheres.
- 4. The product must be mounted in an IECEx / ATEX Ex 'e' enclosure with minimum IP54 rating while situated in hazardous dust atmospheres.
- 5. Live connections or disconnections in the hazardous area are limited to a passive antenna type only. Antenna output is galvanically isolated, so intrinsically safe parameters are not relevant.
- 6. The product must only be situated in the safe area when providing 'ia' output into mining 'M1' area.



Attention is drawn to the operating and installation instructions which may contain useful information in relation to conditions of use.

**18 Essential Health and Safety Requirements (Directive Annex II)**

Element Materials Technology has conducted a gap analysis between the standards applied within the reports listed under section 8 and the latest versions of the corresponding harmonised standards (as listed in section 9). This analysis has confirmed continued compliance with the Essential Health and Safety Requirements. The analysis is detailed in report: TRA-055876-33-01A.

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

**19 Drawings and Documents**

The list of controlled technical documentation is given in Appendix A to this schedule.

**SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE**

**CERTIFICATE NUMBER TRAC15ATEX0050X (incorporating variations V1 to V6)**

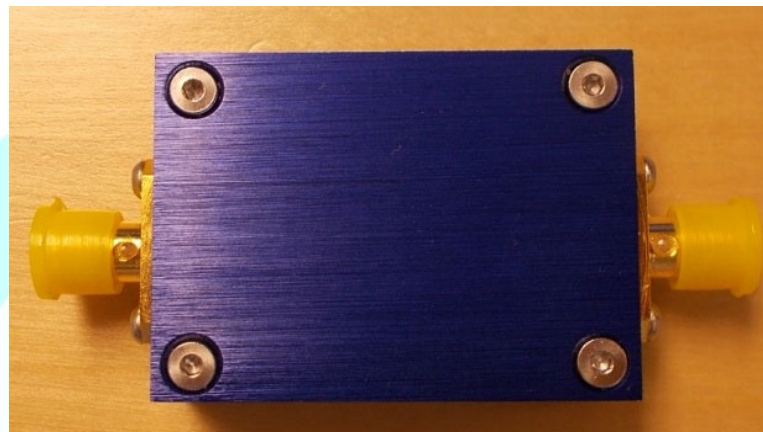
**20 Routine Tests**

None.

**21 Specific Conditions for Manufacture**

None.

**22 Photographs**



**23 Details of Markings**

**EXTRONICS iSOLATE501**  
**CW10 OHU, UK, 20XX**

IECEX TRC 15.0015X

Ex nA [Ex ia Ga] IIC T6 Gc

Ex ic [Ex ia Da] IIIC T85°C Dc

[Ex ia Ma] I

TRAC15ATEX0050X

**CE** XXXX

**Ex** II 3 (1) GD **Ex** I (M1) RoHs

-40°C ≤ Ta ≤ +80°C S/N: XXX

Um=253V

See manual for safety instructions

## SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

### CERTIFICATE NUMBER TRAC15ATEX0050X (incorporating variations V1 to V6)

#### 24 Certificate History

|                      |            |   |
|----------------------|------------|---|
| Original certificate | 2015-09-30 | First issue.  |
| Variation V1         | 2016-10-13 | Addition of ambient temperature. No other change  |
| Variation V2         | 2016-11-24 | Removal and update of 4 drawings on the technical documents list.   |
| Variation V3         | 2017-08-23 | Administrative variation only.  |
| Variation V4         | 2017-12-20 | Alternative 2 part enclosure, change to encapsulation, Um and Special conditions of use.  |
| Variation V5         | 2019-11-01 | This certificate was originally issued by Notified Body number 0891 under Directive 2014/34/EU. The technical file has been transferred to Element Notified Body number 2812 without further assessment or evaluation |
| Variation V6         | 2021-12-13 | Update to applied standards and minor revision to conditions of use (to correct typographical error in dBm values).   |

This certificate is a consolidated certificate and reflects the latest status of the certification, including all variations and amendments.

#### 25 Notes to CE marking

In respect of CE Marking, Element Materials Technology accepts no responsibility for the compliance of the product against all applicable Directives in all applications.

#### 26 Notes to this certificate

Element Materials Technology certification reference: ERO035075P55 (GU-EXTQ-0010).

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

Notified Body number 2812 is the designation for Element Materials Technology Rotterdam BV.

In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variation certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016. Used for variations to certificates first issued under 94/9/EC

TA1 TRA-029958-00

#### 27 Conditions for the validity of this certificate

This certificate remains valid for so long as:

- (i) The equipment listed in section 4 is manufactured in accordance with the documents listed in Appendix A of this certificate.
- (ii) The standards listed in section 9 of this certificate continue to satisfy the Essential Health and Safety Requirements of Annex II of Directive 2014/34/EU and the generally acknowledged state of the art (e.g. as determined by the publishers of those standards).

**SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE**

**CERTIFICATE NUMBER TRAC15ATEX0050X (incorporating variations V1 to V6)**

**APPENDIX A - TECHNICAL DOCUMENTS**

| <b>Title:</b>   | <b>Drawing No.:</b> | <b>Rev. Level:</b> | <b>Date:</b> |
|---|---------------------|--------------------|--------------|
| CD iSOLATE501 PCB Certification Drawing                 | 409580              | 2.1                | 2015-06-16   |
| iSOLATE501 Label Certification ATEX_IECEX               | 418407              | 2.0                | 2017-10-10   |
| CD iSOLATE501 General Assembly Certification (2 sheets) | 412479              | 3.0                | 2017-10-10   |
| Safety Instructions iSOLATE501 (8 sheets)               | X120044             | 2                  | 2021-11-30   |

