

1 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.: **EMT19ATEX0013X**

4 Product: **Location Tracking Personnel Tag.
Model iTAG X30 ZZZZ**

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 report **TRA-044330-33-00A**.

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

EN IEC 60079-0:2018 EN 60079-11:2012

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.

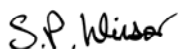
12 The marking of this product shall include the following:

 **II 1 GD Ex ia IIC T4 Ga -30 °C ≤ T_{amb} ≤ +55 ° C**

Ex ia IIIC T200 135 °C Da -30 °C ≤ T_{amb} ≤ +55 ° C

 **I M1 Ex ia I Ma -30 °C ≤ T_{amb} ≤ +55 ° 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: 2020-04-27

Page 1 of 6

CSF355-NL 2.0

13 SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

14 CERTIFICATE NUMBER EMT19ATEX0013X

15 Description of Product

The iTAG X30 is an intrinsically safe personnel tag designed to provide location tracking in hazardous gas, dust and mining environments. The equipment is intended to be worn on the user by use of a stainless steel clip on the back of the tag.

The equipment utilises a Wi-Fi Network Processor, GPS receiver, bluetooth transmitter / receiver, LF receiver, sounder, vibration motor, accelerometer, and multiple LED's. The circuitry is fully enclosed within an anti-static plastic enclosure, with a rubber overmould to protect against drops and impacts. The enclosure meets the IP65 requirements of IEC 60529 for protection against dust and water ingress.

Two rechargeable lithium-ion polymer cells in parallel provide 3.7 Vdc nominal to the rest of the equipment. The cells tabs are soldered directly to an external dual battery protection PCB, which includes a fuse-resistor combination to limit current. The main PCB featuring the majority of the electronics connects via a three wire connector. With the exception of a few components, buttons and connectors, a conformal coating is applied to both PCB's in full.

A charger adapter connects to external charging contacts on the back of the tag enclosure for use in the non-hazardous area only. The front of the equipment has an anti-static plastic cover to hold a personnel ID card. The same plastic is also used as a guard over a call button and LED status indicator on the top of the tag. A button for switching bluetooth on or off is recessed on the back of the enclosure along with stainless steel fixing screws.

Model number iTAG X30 suffix ZZZZ denotes an alphanumeric characters code (maximum 10 digits) to identify equipment variants such as regional marking requirements or ID cover option.

Table of entity parameters	
Parameter	Charger input
Um	6.5 V

16 Test Report No. (as added for this issue of the certificate): TRA-044330-33-00A.

17 Specific Conditions of Use

1. Tag must only be charged in safe area only.
2. Tag must only be charged from a supply meeting the following requirements:
 - a. A SELV or PELV system, or
 - b. Via a safety isolating transformer complying with the requirements of IEC 61558-2-6, or technically equivalent standard, or
 - c. Directly connected to apparatus complying with the IEC 60950 series, IEC 61010-1, or a technically equivalent standard, or
 - d. Fed directly from cells or batteries
3. Tag charger input $U_m = 6.5$ Vdc
4. Battery cells must not be replaced in a hazardous area



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

SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE
CERTIFICATE NUMBER EMT19ATEX0013X

18 Essential Health and Safety Requirements (Directive Annex II)

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.

20 Routine Tests

None.

21 Specific Conditions for Manufacture

None.

22 Photographs

iTAG X30


Charging adapter




SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE
CERTIFICATE NUMBER EMT19ATEX0013X

23 Details of Markings

 **EXTRONICS** iTAG X30 ZZZZ
CW10 0HU, UK
EMT19ATEX0013X
IECEX EMT 19.0010X

 II 1 GD / I M1
Ex ia I Ma
Ex ia IIC T4 Ga
Ex ia IIIC T₂₀₀ 135°C Da
-30°C ≤ T_{amb} ≤ +55°C

 YYY

 **Read Manual!**
U_m = 6.5Vdc
S/N: XXXXXX

Notes:

- Text to be printed legibly on label
- Position of text on label may change
- Additional information may be included on label
- XXXXXX denotes serial number
- YYY denotes notified body number
- ZZZZ denotes an alphanumeric character code (maximum 10 digit) to identify equipment variants (such as regional marking requirements or ID cover options)
- Label size: 27 x 31 mm minimum
- Label material: CILS 8200

24 Details of Variations to this Certificate

This certificate is a consolidated certificate and reflects the latest status of the certification, including the following variations:

- None

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: ERO032645P03 (GU-EXTQ-0003).

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.

SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE
CERTIFICATE NUMBER EMT19ATEX0013X

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 EMT19ATEX0013X

APPENDIX A - TECHNICAL DOCUMENTS

Title:	Drawing No.:	Rev. Level:	Date:
General Assembly Certification ATEX/IECEX iTAG X30 (2 sheets)	X123315	2	2020-03-25
Label Safety ATEX IECEX iTAG X30	X123312	2	2020-03-05
Manual Safety ATEX/IECEX iTAG X30 (3 sheets)	X123311	2	2020-02-28
Schematic Main PCB iTag X30 (8 sheets)	X122344	3	2020-03-09
BOM Certification Main PCB iTag X30	X123358	2	2020-03-25
PCB Layout Drawing Certification iTag X30 (4 sheets)	X122341	6	2020-03-09
Schematic Dual Battery Protector iTag X30	X123183	3	2020-03-09
BOM Certification Dual Battery Protector PCB iTag X30	X123266	3	2020-03-25
PCB Layout Drawing Certification Dual Battery Protector iTag X30 (2 sheets)	X123174	5	2020-04-22
Schematic Charge Adapter iTAGX30	X123772	1	2019-11-15