

**UK Type Examination Certificate CML 22UKEX2609 Issue 0****United Kingdom Conformity Assessment**

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **WiFi Access Point**
- 3 Manufacturer **HMI Elements Ltd.**
- 4 Address Unit A & B Windmill Industrial Estate  
Showfield Lane  
Malton  
North Yorkshire YO17 6BT  
United Kingdom

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential reports listed in Section 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.

8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018

EN 60079-11:2012

10 The equipment shall be marked with the following:



II (2) G

[Ex ib Gb] IIB

Tamb: 0°C to +50°C



A Snowden



**CML 22UKEX2609**  
**Issue 0**

## 11 Description

The WiFi Access Point is designed for installation in a non-hazardous area. It is mains-powered associated apparatus,  $U_m = 250$  Vac, with an intrinsically safe output at the antenna connector that supplies a separate antenna, which is not covered by this certificate.

The equipment comprises the following sub-assemblies in a metallic enclosure:

- a.c. mains filter module with double fusing.
- universal input power supply with 5 Vdc/3 A output.
- shunt zener diode interface supplying one of the copper-to-fibre converter modules.
- shunt zener diode interface supplying the WiFi module.
- copper-to-fibre converter module (non-intrinsically safe) supplying an Ethernet port.
- copper-to-fibre converter module (intrinsically safe) supplying the WiFi module.
- WiFi module supplying the antenna (all intrinsically safe), with, typically, up to 9 m of cable.
- Antenna interface, connected to the antenna output port.

The entity parameters associated with the antenna output into the hazardous area are:

$U_o = 6.51$  V

$I_o = 1.032$  A (at 2.4 GHz)

$P_o = 1.68$  W (at 2.4 GHz)

$C_i = 10.5$  pF

$C_o = 1.8$   $\mu$ F

$L_i = 0$

$L_o = 9.6$   $\mu$ H

Cable nominal impedance: 50  $\Omega$

Frequency of operation: 2.4 GHz

## 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	16 Jan 2023	R15774A/00	Issue of prime certificate

Note: Drawings that describe the equipment are listed in the Annex.

## 13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.



**CML 22UKEX2609**  
**Issue 0**

**14 Specific Conditions of Use**

None.

## Certificate Annex

**Certificate Number** CML 22UKEX2609  
**Equipment** WiFi Access Point  
**Manufacturer** HMI Elements Ltd.



The following documents describe the equipment defined in this certificate:

### Issue 0

Drawing No	Sheets	Rev	Approved date	Title
D100057	1 of 1	D1	22 Dec 2022	Marking
D100058	1 of 1	A	22 Dec 2022	Zener interface module assembly
D100059	1 to 3	B*	22 Dec 2022	General assembly and block diagram
D100073	1 of 1	A	22 Dec 2022	Artwork – fuse board
D500004	1 of 1	B	22 Dec 2022	Schematic – antenna interface
D500005	1 of 1	A	22 Dec 2022	Artwork – antenna interface
IS943	1 of 1	A	22 Dec 2022	Parts list – zener interface
IS943CCT	1 of 1	A	22 Dec 2022	Schematic – zener interface
IS946	1 of 1	A	22 Dec 2022	Parts list – earth braid
SA348	1 of 1	A	22 Dec 2022	Parts list – fuse board & zener interface