

Type Examination Certificate CML 24UKEX4233X Issue 0**United Kingdom Conformity Assessment**

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended)
- 2 Equipment **1402-Z2 PC Workstation**
- 3 Manufacturer **HMI Elements Ltd.**
- 4 Address **Unit A & B Windmill Industrial Estate
Showfield Lane
Malton, 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, 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 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 60079-7:2015/A1:2018

EN 60079-11:2012

EN 60079-31:2014

- 10 The equipment shall be marked with the following:



II 3 G D

Ex ec ic {option} IIC T4 Gc

Ex ic {option} tc IIIC T135°C Dc

IP66

Ta= -40°C to +60°C

{option} : [ic] if iSOLATE501 antenna barrier fitted





CML 24UKEX4233X
Issue 0

11 Description

The 1402-Z2 is a 15.6" PC workstation that is designed for use in industrial conditions. The housing is fabricated from aluminium and provides an ingress protection of IP66. A touch screen is fitted within the glass window in the lid.

The equipment is AC powered, capable of auto ranging between 100-240Vac (50 to 60 Hz). The power supply and the connection of peripheral equipment are achieved using connectors type PT02A and PT07A or certified cable glands that are fitted in the connection plate at the rear or underside of the unit.

The 1402-Z2 can contain the following components:

- AC power supply
- 15.6" standard or high bright, daylight readable LED backlit LCD panel
- Projected capacitive touchscreen (PCT)
- PC board including Intel 11th gen i7 core and two DDR4 slots to combine up to 64 GB of RAM
- Media Communication ports: ethernet, USB, HDMI, DP.
- Heater mat
- Dual or Tri-band Wi-Fi module.

The Dual or Tri-band Wi-Fi module could be connected to internal antennas or to external antennas. When connected to external antennas, the separately certified "ia" RF isolator type iSolate501 can be fitted in the equipment. When the equipment is fitted with one or two isolator(s), the marking of the product is "Ex ec ic[ic]" or "Ex ic[ic] tc". Whether protected by the isolators or not, external antennas have not been evaluated and are excluded from the scope of the certification.

The equipment is fitted with an external membrane keypad at the side of the unit which is protected by an internal intrinsic safety barrier board.

The above components and all other not mentioned are listed on the GA, drawing D100493.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	13 Sep 2024	R17676A/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. Copies of the certificates for all separately certified equipment shall be supplied.



CML 24UKEX4233X
Issue 0

- ii. The equipment shall be subjected to an electric strength test using a test voltage of 1500Vac applied between the input circuits and frame, for a period of 60 secs.

Alternatively, the test shall be carried out at 1,2 times the test voltage, but maintained for at least 100 ms.

14 Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

- i. The user/installer shall install the 1402-Z2 PC Workstation taking into account any restrictions or special conditions for safe use that are applicable to the previously certified devices that are fitted to the unit.
- ii. The 1402-Z2 PC Workstations shall be installed and used within the ambient temperature range that is marked on the product, however, when the products are being stored, the lower temperature remains the same, but the maximum temperature may be raised to 80°C.
- iii. The 1402-Z2 PC Workstations shall be used in an area of at least Pollution degree 2 as defined in IEC 60664-1.
- iv. Transient voltage protection shall be provided by the external circuits to ensure that transient over-voltages to the main supply terminals cannot exceed 140% of 285 V and to the Media Communication ports (ethernet, USB, HDMI, DP) cannot exceed 140% of 85V.
- v. The 1402-Z2 PC Workstations shall be located where there is a low risk of impact.
- vi. Due to the possibility of static build up the equipment shall only be cleaned with a damp cloth. Refer also to user manual.

Certificate Annex

Certificate Number CML 24UKEX4233X
Equipment 1402-Z2 PC Workstation
Manufacturer HMI Elements Ltd.



The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved Date	Title
D100493	1 to 7	A3	06 Sep 2024	GA Drawing and Certification Parts List
D100494	1 to 2	A4	06 Sep 2024	Specification plate and warning label
D100495	1 to 1	A2	06 Sep 2024	Electrical block Diagram
D100496	1 to 1	A0	06 Sep 2024	Heatsink gasket
D100497	1 to 1	A1	06 Sep 2024	Connector plate gasket
D100498	1 to 1	A0	06 Sep 2024	Front gasket
D100499	1 to 1	A0	06 Sep 2024	Front enclosure assembly
D100500	1 to 2	A1	06 Sep 2024	Rear enclosure assembly
D100501	1 to 1	A0	06 Sep 2024	Heater Mat
D100502	1 to 15	A1	06 Sep 2024	Intrinsically Safe Keypad Barrier Circuit Description
D100503	1 to 2	A0	06 Sep 2024	Mains Input Protection Board Schematic and PCB Layout
D100504	1 to 1	A0	06 Sep 2024	MSI CPU Heat Spreader Plate
D100505	1 to 1	A0	06 Sep 2024	BIOS Back-up Battery
D100506	1 to 6	A0	06 Sep 2024	Earth Stud Arrangement External/Internal
D100507	1 to 3	A0	06 Sep 2024	IP Seal Arrangement
D100508	1 to 2	A0	06 Sep 2024	Keypad Barrier Schematic and PCB Layout
D100513	1 to 1	A1	06 Sep 2024	Antenna cover (Plastic)
D100516	1 to 1	A1	06 Sep 2024	I/O Connection Board Schematic and PCB Layout
D100522	1 to 12	A2	06 Sep 2024	PCB Connectors
D100524	1 to 1	A0	06 Sep 2024	SSD Controller IIC Surface Area
D100525	1 to 1	A0	06 Sep 2024	Schaffner FN2060-6-06 Filter- Creepage and Clearance
D100526	1 of 2	A0	06 Sep 2024	Membrane Keypad
D100028	1 to 1	C1	06 Sep 2024	Interface Components N-Type Bulkhead Connector
D100111	1 to 1	A1	06 Sep 2024	Phoenix Contact 3.81mm Pitch PCB Terminal Block
D100184	1 to 2	B0	06 Sep 2024	Amphenol Miniature Cylindrical Connectors (PT02 flange mount)
D100185	1 to 2	B0	06 Sep 2024	Amphenol Miniature Cylindrical Connectors (PT07 Jam nut mount)
D100205	1 to 3	A0	06 Sep 2024	Potting Tolerances for Amphenol Flange Mounted Connectors
60-04-2754	1 to 1	B1	06 Sep 2024	Phoenix Contact 2.54 mm Pitch PCB Terminal Block