1 EU - Type Examination Certificate

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

3 Certificate Number: ExVeritas 23ATEX1538X Issue: 3

4 Equipment: Cocoon Habitat – Pressurised Room and Control System

5 Manufacturer: Cairn Safety Technology

6 Address: Unit 9J, Voigt Road, Victoria Green Business Park, Carnoustie, DD7 7DS, United Kingdom

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

8 ExVeritas, Notified Body number 2804 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems for use in potentially explosive atmospheres given in Annex II to the Directive

9 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with the following Standards and section 16 of this certificate:

EN IEC 60079-0: 2018 EN 60079-13:2017 EN 50381:2004

10 If the sign “X” is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design, construction, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment shall include the following:

II 2 G Ex pb IIB/IIB + H2 T4 Gb

II 2 G EEx v2 IIB/IIB+H2 T4

T_{amb} -40°C/-20°C to +40°C/+50°C/+55°C

Gas group and ambient temperature marked is dependent upon the certified parts used in the control system.

DANAK
PROD Reg.No. 7044
Member of EA MLA

On behalf of ExVeritas

Peter Lauritzen
Managing Director

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13 Description of Equipment or Protective System

The 'Cocoon Habitat' pressurised room (Habitat) and control system is designed to provide a temporary room that can reduce a Zone 1 or Zone 2 area to a safe area within the room. The room can be configured in multiple arrangements to provide rooms of different volumes and physical layout. This is achieved with prefabricated panels, airlock, air outlet, air inlet, airflow fans and safety control system.

Refer to manufacturer's maintenance schedules and procedures for further details.

13.1 Details of change

Issue 1 – The following changes are introduced in issue 1 of the certificate:

- Inclusion of additional panel materials.
- Inclusion of option to set the purge time according to the volume of the habitat.
- Inclusion of alternative certified parts used in the system.

Issue 2 – The following changes are introduced in issue 2 of the certificate:

- Change of manufacturer address.

14 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R4257/A/1	2023-08-29	0	Initial issue of the Prime Certificate
R5182/A/1	2024-07-29	1	Issue of the first variation, see section 13.1 for details of change.
R6713/A/1	2026-07-06	2	Issue of the second variation, see section 13.1 for details of change.
N/A	2026-10-15	3	Correction to the edition date of standard EN 50381, from 2014 to 2004, on the certificate only. Previous reports are unaffected.

15 Special Conditions for Safe Use

- Equipment must only be installed and operated by personnel trained on the equipment. Equipment must be installed in accordance with user instructions, habitat checklist requirements and single door procedure where applicable.
- Habitats must be constructed such that no dead air spaces are created where gases may accumulate. Inlets and outlets are to be located and arranged such that the clean air flow is evenly distributed considering the density of gases and vapours that may be present before and during operation, including internal sources of release such as acetylene.
- Hot work shall be arranged and conducted as to reduce the likelihood of generated sparks or hot particles from contacting door, duct, or penetration panels. Welding curtains/blankets/screens may be used to aid in hot particles management.
- Habitat panels and ducts for clean air supply and exhaust should be leak free and protected from mechanical damage. Parts must be inspected prior to each use.
- Equipment inside the room not rated for the external EPL must be powered via the Einstein Control System.
- The exhaust duct, and single door if used, shall be guarded from high wind speeds by use of windbreaks or other means. In addition, when a single door is used, consideration should be given when wind speeds may exceed the minimum required 0.3 m/s face velocity of the door, which may cause the infiltration of the external explosive atmosphere.
- When Venturi extraction is used, it shall be positioned away from walls of the habitat to prevent the external atmosphere being drawn in - See manual for more details.
- No non-ventilated enclosures containing electrical equipment and exceeding 5% of the total habitat volume shall be present within the habitat.
- In the case of system failure, all hot parts shall immediately, and before opening of the habitat door, be quenched. Water or other appropriate means based on application to quickly cool hot surfaces is to be readily available to prevent an ignition in the event the pressurisation or ventilation system fails.
- The use of the supplied gas detector and location of the gas detector must be deemed sufficient based upon end-user process risk evaluation. Guidance can be found in IEC 60079-29.

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Schedule

- Discharge of the room ventilation system shall be positioned in open air and free from any constructional features which may allow for discharged gases to accumulate.
- The inlet shall be suitably located such that the air supplied to the habitat is from a non-hazardous area.
- The end user must ensure that the indicators and operators on the lid of the Ex d control box are suitably protected from the risk of external impacts when the equipment is in use.
- All certificate conditions for the individual certified parts must be met in addition to the requirements of this certificate.

16 Essential Health and Safety Requirements

Essential Health and Safety Requirements are addressed by the standards listed in section 9 and where required the report listed in section 14.

The manufacturer shall inform the Notified Body of any modifications to the design of the product described by this schedule.

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