

1 EU - Type Examination Certificate

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

3 Certificate Number: ExVeritas 16ATEX0204 **Issue:** 1

4 Equipment: SAFE-STOP Control System and Pressurized Room

5 Manufacturer: PressureHab Ltd

6 Address: 1 Norwood Terrace
Dundee
DD2 1PB

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 2585 in accordance with Article 9 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 60079-0: 2012
EN 60079-13: 2010

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 px IIB T4 Gb



No. 8613

On behalf of ExVeritas

S L Clarke CEng MSc MIET
Certification Manager

This certificate may only be reproduced in its entirety and without any change, schedule included.

The certificate is only valid when it carries an original signature.

For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas, Units 16-18, Abenbury Way, Wrexham Industrial Estate, Wrexham, United Kingdom LL13 9UZ.

ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.

Schedule

13 Description of Equipment or Protective System

The PressureHab Safe-Stop Control System and Pressurized Room consists of a Pressure Control Unit (PCU) and Modular Control Unit (MCU), which connect with a 300mm flexible duct, and also includes automatic Shut Down Unit (SDU) which controls power and gas supply to the modular habitat. The MCU and PCU provide purge and pressurization control of a modular habitat which is constructed from a number of fabric panels that can be arranged to suit the specific installation. Access to the habitat is via a self-latching hard door.

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R0947A/1	18/01/2017	1	Initial issue of the Prime Certificate

14.2 Compliance Drawings:

Number	Date	Issue	Description
PH-M-01-01-002	02/11/2016	6	PCU Parts Explosion
PH-M-01-01-001	02/11/2016	6	PCU General Arrangement
PH-M-02-01-001	02/11/2016	5	MCU General Arrangement
PH-M-02-01-002	02/11/2016	5	MCU Parts Explosion
PH-M-02-01-003	20/10/2016	2	Pitot Tube Location
PH-M-03-01-002	16/10/2016	2	SDU 16A 115V Parts Explosion
PH-M-03-01-001	02/11/2016	2	SDU 16A 115V General Arrangement
PH-M-03-01-010	02/11/2016	5	SDU 32A 415V General Arrangement
PH-M-03-01-011	02/11/2016	5	SDU 32A 415V Parts Explosion
PH-M-03-01-020	02/11/2016	2	SDU 63A 415V General Arrangement
PH-M-03-01-021	02/11/2016	2	SDU 63A 415V Parts Explosion
PH-M-06-01-GA	22/11/2016	1	Airlock G.A
PH-M-06-01-001	21/11/2016	2	1 x 1 m Standard Panel 550°C
PH-M-06-01-002	21/11/2016	2	1 x 2 m Standard Panel Large 550°C
PH-M-06-01-004	21/11/2016	2	1 x 1 m Breather Panel 550°C
PH-M-06-01-005	21/11/2016	2	1 x 1 m Window Panel 550°C
PH-M-06-01-006	21/11/2016	2	1 x 1 m Duct Panel 18" 550°C
PH-M-06-01-007	21/11/2016	2	1 x 1 m Duct Panel 10" 550°C
PH-M-06-01-008	21/11/2016	2	1 x 2 m Emergency Exit Door 550°C
PH-M-06-01-009	21/11/2016	2	1 x 1 m Floor Tile Red 815°C
PH-M-06-01-011	23/11/2016	1	130mm x 130mm Patch Panel
PH-M-06-01-016	21/11/2016	2	1 x 1 m Duct Panel 24" 550°C
PH-M-06-01-017	21/11/2016	2	1 x 1 m Intrusion Panel 24" 550°C
PH-P-06-11-020	28/11/2016	6	SAFE-STOP™ Data Plate
PH-P-14-01-008	19/10/2016	1	DECAL - Warning Label
PH-P-14-01-036	14/01/2017	1	DECAL - Authorised Personnel Only
PH-P-14-01-037	14/01/2017	1	TAG - Equipment Inspection Record
PH-P-14-01-039	14/01/2017	1	DECAL - Warning Pressurized Room
PH-M-06-11-001	21/11/2016	2	1 X 2 metre Hard Door Panel
PH-M-06-11-002	21/11/2016	1	1 x 2 metre Airlock Hard Door Panel
PH-M-06-11-003	21/11/2016	2	1 x 1 MCU Panel 550°C
PH-M-10-11-101	21/11/2016	2	Hard Door Frame Details
PH-M-10-11-106	23/11/2016	2	Door Stand Assembly
PH-M-10-12-001	14/01/2017	5	Hard Door General Arrangement
PH-M-13-11-003	02/11/2016	2	PCU Control

Certificate 16 ATEX 0204

Issue 1

This certificate may only be reproduced in its entirety and without any change, schedule included.

For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas, Units 16-18, Abenbury Way, Wrexham Industrial Estate, Wrexham, United Kingdom LL13 9UZ.

ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.

Schedule

PH-M-13-11-004	02/11/2016	2	PLC Inputs 0-7
PH-M-13-11-005	02/11/2016	2	PLC Inputs 8-13
PH-M-13-11-006	02/11/2016	2	PLC Outputs 0-5
PH-M-13-11-007	02/11/2016	2	PLC Outputs 0-5
PH-M-13-11-008	02/11/2016	2	SDU Interface Relays
PH-M-13-11-009	02/11/2016	2	Detectors & External Signals
PH-M-13-11-010	02/11/2016	2	MCU Devices
PH-M-13-11-011	02/11/2016	2	32A Shutdown Unit (SDU)
PH-M-13-11-012	02/11/2016	2	63A Shutdown Unit (SDU)
PH-M-13-11-013	02/11/2016	2	16A Shutdown Unit (SDU)

15 Conditions of Certification

15.1 **Special Conditions for Safe Use**

None.

15.2 **Conditions for Use**

The pressurized room shall be purged until the internal atmosphere has been shown to be gas free prior to energizing electrical equipment or commencing hot work.

There shall be no internal sources of release of flammable materials (joints under pressure within pipework: flanges, threaded joints etc. This does not include welded joints) from process pipework within the pressurized room.

If burning or gouging (using flammable gases) is to be performed within the pressurised room then refer to the manufacturer's user manual for details.

If inert gases are used within the pressurized room then oxygen monitoring shall be provided within the room which alarms if oxygen depletion occurs. The alarm shall both be audible and visual. There shall also be a warning sign at the point of entry into the room which warns of an asphyxiation hazard.

The manufacturer shall verify that in the final installation the minimum outward airflow through the door is 0.3 m/s.

Refer to the manufacturer's user manual for the purging and pressurisation procedures.

Periodic verification - In addition to the requirements of EN 60079-17, the following should be verified on a periodic basis:

- Performance of safety devices.
- Integrity of ducting.
- Integrity of penetrations.
- Up to date calibration.



16 **Schedule**
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 14.1

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

Certificate 16 ATEX 0204 Issue 1

This certificate may only be reproduced in its entirety and without any change, schedule included.
For help or assistance relating to this certificate, contact info@exveritas.com.
ExVeritas, Units 16-18, Abenbury Way, Wrexham Industrial Estate, Wrexham, United Kingdom LL13 9UZ.
ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.