



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx EXV 16.0019 Issue No: 0 Certificate history:  
Status: **Current** Page 1 of 3 Issue No. 0 (2017-02-06)  
Date of Issue: **2017-02-06**  
Applicant: **PressureHab Ltd**  
1 Norwood Terrace,  
Dundee,  
DD2 1PB  
United Kingdom  
Equipment: **SAFE-STOP Control System and Pressurized Room**  
*Optional accessory:*  
Type of Protection: **Equipment Protection by Pressurized Room "p"**  
Marking: **Ex px IIB T4 Gb**

*Approved for issue on behalf of the IECEx  
Certification Body:*

Sean Clarke CEng MSc

*Position:*

Certification Manager

*Signature:*  
*(for printed version)*

*Date:*

07/07/17

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

ExVeritas Limited  
Units 16-18 Abenbury Way  
Wrexham Ind. Est.  
Wrexham LL 139UZ  
United Kingdom





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Manufacturer: **PressureHab Ltd**  
1 Norwood Terrace  
Dundee  
DD2 1PB  
United Kingdom

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

#### STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

**IEC 60079-0 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-13 : 2010-10** Explosive atmospheres - Part 13: Equipment protection by pressurised room "p"  
Edition:1.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

#### TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

#### Test Report:

GB/EXV/ExTR16.0023/00

#### Quality Assessment Report:

GB/EXV/QAR16.0006/00



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The PressureHab SAFE-STOP Control System consists of a Pressure Control Unit (PCU) and Modular Control Unit (MCU), which connects 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.

**CONDITIONS OF CERTIFICATION: NO**

### Annex:

IECEx Certificate Annex IECEx EXV16.0019 Rev\_2.pdf



<b>Manufacturer's documents:</b>			
<b>Number</b>	<b>Date</b>	<b>Issue</b>	<b>Description</b>
PH-M-01-01-002	2/11/2016	6	PCU Parts Explosion
PH-M-01-01-001	2/11/2016	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-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-13-11-003	02/11/2016	2	PCU Control
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)

## 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 pressurized 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 pressurization 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.