

PE145/20

EU DECLARATION OF CONFORMITY

Manufacturer: Pyropress Limited
Address: Bell Close, Plympton, Plymouth, Devon, England, PL7 4JH

The Manufacturer hereby declares that the flameproof products: - Perseus Type:

PF6, PR6	Pressure Switch	TF6, TR6	Temperature Switch
VF6, VR6	Vacuum Switch	LF6, LR6	Level Switch
DF6, DR6	Differential Pressure Switch	FF6, FR6	Flow Switch

Comply with the requirements of:

Product Intended for Use in Potentially Explosive Atmospheres

EU Directive 2014/34/EU and UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1.

II 2G Ex db IIC T6...T5 Gb. Certified: T6 (-50°C to +75°C), T5 (-50°C to +90°C),

II 2D Ex tb IIIC T85°C...T100°C Db: T85°C (-50°C to +75°C), T100°C (-50°C to +90°C)

International Electrotechnical Commission IEC Certification Scheme for Explosive Atmospheres

Ex db IIC T6...T5 Gb. Certified: T6 (-50°C to +75°C), T5 (-50°C to +90°C),

Ex tb IIIC T85°C...T100°C Db: T85°C (-50°C to +75°C), T100°C (-50°C to +90°C)

When used within the limitations & conditions of the product specifications & working instructions

EU Type Examination Certificate Number: ExVeritas 17ATEX0304X

IECEX Type Examination Certificate Number: IECEX EXV 17.0031X

UKEX Type Examination Certificate Number: ExVeritas 21UKEX0893X

Harmonised standards applied: EN IEC 60079-0:2018, EN60079-1:2014 and EN60079-31:2014.

Other Standards applied: IEC 60079-0:2017, IEC60079-1:2014-06 and IEC 60079-31:2013.

Ingress Protection, BS EN 60529:1992+A2:2013, IEC 60529:1989+A1:1999+A2:2013; IP66/IP67 rated.

Other Directives applied: Pressure Equipment 2014/68/EU, Sound Engineering Practice (SEP), Chapter 1, Article 4 (3).

Notified Body responsible for EU Type Examination Certificate:

ExVeritas ApS, Severinsmindevej 6, 4420 Regstrup, Denmark.

Notified body No 2804

Notified Body responsible for IECEX and UKEX Type Examination Certificates:

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

Notified body No 2585.

Notified Body responsible for Quality Assurance:

Intertek Testing Services NA Ltd, 14920-135 Avenue, Edmonton, AB, T5V 1R9, Canada. Notified body No 2903.

Intertek Testing & Certification Ltd, Intertek House, Cleeve Road, Leatherhead, Surrey, England KT22 7SB.

Notified body No: 0359.

Equipment Specification: Product specifications are listed in the Technical file TCF 1040

This Declaration may only be used in its entirety & without change. Modification of this equipment / product without prior approval from Pyropress Limited will render this declaration null & void.

Steve Noakes, Managing Director of Pioneer Safety Group

Signed..........Dated...1st August 2026.

1 EU - Type Examination Certificate

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

3 Certificate Number: ExVeritas 17ATEX0304X Issue: 4

4 Equipment: Perseus Ex db tb Switch

5 Manufacturer: Pyropress Ltd

6 Address: Bell Close
Plympton
Plymouth
Devon, PL7 4JH, UK.

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 60079-1: 2014

EN 60079-31:2014

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 2G Ex db IIC T6...T5 Gb

Tamb -50°C to +75°C T6
-50°C to +90°C T5

II 2D Ex tb IIIC T85°C...T100°C Db

-50°C to +75°C T85°C
-50°C to +90°C T100°C



On behalf of ExVeritas



Peter Lauritzen
Managing Director

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Schedule

13 Description of Equipment or Protective System

The Perseus switch is used to sense changes in temperature, pressure, level and flow via mechanical actuators. The generic two chamber enclosure is utilised for all applications and is constructed from aluminium LM25TF or material of greater tensile strength. The terminal chamber has access via an M52 threaded cover with up to two M20 cable entries (optional 1/2" NPT) which can be positioned around the terminal chamber and contains the terminals and PCB with microswitch fitted. An operating rod interfaces to the second chamber using a cylindrical path fitted within a threaded bushing. The Perseus housing maintains a rating of IP6X at a minimum. The maximum internal free volume is 99cc.

Max Rating: 250V 5A AC 30V 5A DC or 125V 0.4A DC

13.1 Detail of changes

Issue 1

- Introduction of protection by Enclosure 'tb' for dust environments to EN 60079-31
- Update to latest general Requirements EN 60079-0

Issue 2

- Transfer of certificate to Danish NB – no drawing changes

Issue 3

- Minor drawing changes and additional X condition regards use of Gunmetal & Marine Brass in Acetylene atmospheres.

Issue 4

- Label change to allow new DC rating of 125V/0.4A

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R1330/A/1	13 th Feb 2018	0	Initial issue of the Prime Certificate
R1727/A/1	19 Mar 2020	1	Issue of Variation 1
N/A – ExV3035	31 Oct 2020	2	Transfer of the certificate from ExVeritas UK, Notified Body number 2585 to ExVeritas Denmark, Notified Body number 2804. Certificate number remains unchanged.
R4173/A/1	10 Oct 2022	3	Issue of Variation 2
R4989/A/1	23 Jan 2024	4	Issue of Variation 3

14.2 Compliance Drawings:

Issue 4

Title:	Drawing No:	Sheets	Rev	Date:
Certification Drawing, Perseus Ex db & tb Switch	1218/A1	1 of 1	7	12.12.23
Certification Drawing Labels, Perseus Ex db & tb Switch	1219/A3	1 of 1	7	12.12.23

Certificate: ExVeritas 17ATEX0304X

Issue 4

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Schedule

15 Conditions of Certification

15.1 Special Conditions for Safe Use

- Under rated conditions, the cable temperature can reach 9K above ambient temperature, ensure selection of correctly rated cable for the application.
- Flameproof joints not intended for repair.
- For IIC applications, F_6 configurations utilising plates made from alloys with high copper content (e.g. gunmetal or marine brass) may only be used in atmospheres free from acetylene due to the potential formation of acetylides on external surfaces that can be ignited by friction or impact.

15.2 Conditions for Use (Routine tests)

- None

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 14.1

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

Certificate: ExVeritas 17ATEX0304X

Issue 4

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IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX EXV 17.0031X**

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Certificate history:

Status: **Current**

Issue No: 3

Issue 2 (2022-10-11)

Issue 1 (2020-05-13)

Issue 0 (2018-04-20)

Date of Issue: **2024-01-25**

Applicant: **Pyropress Ltd
Bell Close
Plympton
Plymouth
Devon
PL7 4JH
United Kingdom**

Equipment: **Perseus Ex db tb Switch**

Optional accessory:

Type of Protection: **Flameproof Ex 'db', Enclosure 'tb'**

Marking: Ex db IIC T6...T5 Gb Tamb -50°C to +75°C T6
-50°C to +90°C T5
Ex tb IIIC T85°C...T100°C Db Tamb -50°C to +75°C T85°C
-50°C to +90°C T100°C

Approved for issue on behalf of the IECEx
Certification Body:

Sean Clarke CEng MSc FIET

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.



Certificate issued by:

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





IECEX Certificate of Conformity

Certificate No.: **IECEX EXV 17.0031X**

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Date of issue: **2024-01-25**

Issue No: 3

Manufacturer: **Pyropress Ltd**
Bell Close
Plympton
Plymouth
Devon
PL7 4JH
United Kingdom

Manufacturing
locations:

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with 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 Reports:

GB/EXV/ExTR17.0030/00
GB/EXV/ExTR24.0007/00

GB/EXV/ExTR20.0010/00

GB/EXV/ExTR22.0094/00

Quality Assessment Report:

GB/ITS/QAR11.0004/08



IECEX Certificate of Conformity

Certificate No.: **IECEX EXV 17.0031X**

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Date of issue: **2024-01-25**

Issue No: 3

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Perseus switch is used to sense changes in temperature, pressure, level and flow via mechanical actuators. The generic two chamber enclosure is utilised for all applications and is constructed from aluminium LM25TF or material of greater tensile strength. The terminal chamber has access via an M52 threaded cover with up to two M20 cable entries (Optional 1/2" NPT) which can be positioned around the terminal chamber and contains the terminals and PCB with microswitch fitted. An operating rod interfaces to the second chamber using a cylindrical path fitted within a threaded bushing. The Perseus housing maintains a rating of IP6X at a minimum.

The maximum internal free volume is 99cc.

Max Rating: 250V 5A AC 30V 5A DC or 125V 0.4A DC

Title:	Drawing No.	Sheets	Rev. Level	Date:
Certification Drawing, Perseus Ex db & tb Switch	1218/A1	1 of 1	7	12.12.23
Certification Drawing, Labels, Perseus Ex db & tb Switch	1219/A3	1 of 1	7	12.12.23

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Under rated conditions, the cable temperature can reach 9K above the ambient temperature, ensure selection of correctly rated cable for the application
- Flameproof joints not intended for repair
- For IIC applications, F_6 configurations utilising plates made from alloys with high copper content (e.g. gunmetal or marine brass) may only be used in atmospheres free from acetylene due to the potential formation of acetylides on external surfaces that can be ignited by friction or impact



IECEx Certificate of Conformity

Certificate No.: **IECEx EXV 17.0031X**

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Date of issue: **2024-01-25**

Issue No: 3

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Label change to allow new DC rating of 125V/0.4A

1 **UNITED KINGDOM CONFORMITY ASSESSMENT**
UK TYPE EXAMINATION CERTIFICATE

2 **Product Intended for use in Potentially Explosive Atmospheres**
UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1

3 Type Examination Certificate Number: ExV 21UKEX0893X Issue: 2

4 Product: Perseus Ex db tb Switch

5 Manufacturer: Pyropress Ltd

6 Address: Bell Close
Plympton
Plymouth
Devon, PL7 4JH, UK.

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

8 ExVeritas Limited Approved Body number 2585, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

9 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0: 2018

EN 60079-1: 2014

EN 60079-31:2014

Except in respect of those requirements listed at section 16 of the schedule to this certificate.

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 TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the equipment shall include the following:



II 2G Ex db IIC T6...T5 Gb

II 2D Ex tb IIIC T85°C...T100°C Db

Tamb -50°C to +75°C T6
-50°C to +90°C T5
-50°C to +75°C T85°C
-50°C to +90°C T100°C



No. 8613

On behalf of ExVeritas



S Clarke CEng MSc FIET
Managing Director

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13 Description of Product

The Perseus switch is used to sense changes in temperature, pressure, level and flow via mechanical actuators. The generic two chamber enclosure is utilised for all applications and is constructed from aluminium LM25TF or material of greater tensile strength. The terminal chamber has access via an M52 threaded cover with up to two M20 cable entries (optional 1/2" NPT) which can be positioned around the terminal chamber and contains the terminals and PCB with microswitch fitted. An operating rod interfaces to the second chamber using a cylindrical path fitted within a threaded bushing. The Perseus housing maintains a rating of IP6X at a minimum. The maximum internal free volume is 99cc.

Max Rating: 250V 5A AC 30V 5A DC or 125V 0.4A DC

13.1 Details of changes

Issue 1

- Minor drawing changes and additional X condition regards use of Gunmetal & Marine Brass in Acetylene atmospheres
- Replacement of UKEX label drawings with generic label drawings.

Issue 2

- Label change to allow new DC rating of 125V/0.4A

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R3357/A/1	22 Jul 2021	0	Initial issue of the Prime Certificate
R4173/A/1	10 Oct 2022	1	Issue of Variation 1
R4989/A/1	23 Jan 2024	2	Issue of Variation 2

14.2 Compliance Drawings:

Issue 2

Title:	Drawing No:	Sheets	Rev:	Date:
Certification Drawing, Perseus Ex db & Ex tb Switch	1218/A1	1 of 1	7	12.12.23
Certification Drawing, Labels, Perseus Ex db & tb Switch	1219/A3	1 of 1	7	12.12.23

15 Specific Conditions of Use

15.1 Special Conditions for Safe Use

- Under rated conditions, the cable temperature can reach 9K above ambient temperature, ensure selection of correctly rated cable for the application.
- Flameproof joints not intended for repair.
- For IIC applications, F_6 configurations utilising plates made from alloys with high copper content (e.g. gunmetal or marine brass) may only be used in atmospheres free from acetylene due to the potential formation of acetylides on external surfaces that can be ignited by friction or impact.

15.2 Routine tests

- None

16 Essential Health and Safety Requirements (Regulations Schedule 1)

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 ExVeritas of any modifications to the design of the product described by this schedule.

Certificate: ExVeritas 21UKEX0893X

Issue 2

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