PE 142/13

EU DECLARATION OF CONFORMITY

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

The Manufacturer hereby declares that the Flameproof products: - Titan Type:

PF261 PR261, PF262, PR261	Pressure Switch		
PF263, PR263, PF264, PR264	High Pressure Switch	TF175, TR175, TF176, TR176	Capillary Temperature Switch
DPF265, DPR265, DPF266, DPR266	Differential Pressure Switch	FF503, FR503	Flow Switch
PF266, PR266	Low Pressure Switch	LF34, LR34	Horizontal Level Switch.
VF266, VR266	Vacuum Switch	LF35, LR35	Vertical Switch
DPF296, DPR296	High Static Differential Pressure Switch	TF171, TR171, TE171, TF172, TR172, TE172	Temperature 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 2 G Ex db IIB+H_2 T6…T2 Gb. Certified: Tamb -60°C to +40°C…. +90°C
International Electrotechnical Commission IEC Certification Scheme for Explosion Atmospheres
Ex db IIB+H2 T6…T2 Gb. Certified: Tamb -60°C to +40°C…. +90°C

When used within the limitations and conditions of the product specifications & working instructions.
EC Type Examination Certificate Number: ExVeritas 19ATEX0501X
IECEx Type Examination Certificate Number: IECEx EXV 19.0031X
UKEX Type Examination Certificate Number: ExVeritas 21UKEX0895X

Harmonised standards applied: EN 60079-0: 2018, EN60079-1: 2014
Other Standards applied: IEC 60079-0: 2017 and IEC 60079-1: 2014-06
Ingress Protection, BS EN 60529:1992+A2:2013, IEC 60529:1989+A1:1999+A2:2013; IP66 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, 4920-135 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 1002

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.

Stephen Burns, Managing Director, on behalf of Pyropress Limited

Signed.....Dated.... 1st August 2022.

1 EU - Type Examination Certificate

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

3 Certificate Number: ExVeritas 19ATEX0501X Issue: 1

4 Equipment: Titan Ex db 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 60079-0: 2018 EN 60079-1: 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:

Ex II 2 G Ex db IIB + H_2 T6.....T2 Gb Tamb -60°C to +40°C .....+90°C

DANAK
PROD Reg.No. 7044
Member of EA MLA

On behalf of ExVeritas

S Clarke CEng MSc
Certification Manager

Schedule

13 Description of Equipment or Protective System

The Titan switch is intended to sense changes in temperature, pressure, level or flow via the use of mechanical actuators. The generic two-chamber enclosure is utilised for all applications and is constructed from aluminium LM25TF or material of greater tensile strength. One chamber contains the means (where necessary) of adjusting the set-point(s) whilst the other houses either a single or dual microswitch assembly. The Titan switch possesses five flamepaths. The respective switch outer case-top cover and switch outer case-electrical entry interfaces are of the flange type. The guide-operating rod interface is of the cylindrical type. And the respective switch outer case-guide and electrical entry-adaptor interfaces are of the threaded type with the latter always utilising a suitably certified adaptor. The maximum internal free volume of the flameproof chamber is 99cc. The limits on the ambient and process temperatures and the internal power dissipation shown in the table below ensure that the equipment does not exceed the maximum surface temperature of any given T Class:

T Class	Ambient Temperature Range (°C)	Permitted Process Temperature (°C)	Power Rating (W)
T6	-60 to +75	-60 to +65	2.5
T6	-60 to +70	-60 to +65	5
T6	-60 to +60	-60 to +65	10
T6	-60 to +50	-60 to +65	15
T6	-60 to +40	-60 to +55	20
T5	-60 to +90	-60 to +80	2.5
T5	-60 to +75	-60 to +80	10
T5	-60 to +70	-60 to +75	12.5
T5	-60 to +60	-60 to +70	17.5
T5	-60 to +50	-60 to +65	22.5
T5	-60 to +40	-60 to +60	27.5
T4	-60 to +90	-60 to +130	2.5
T4	-60 to +75	-60 to +130	10
T4	-60 to +70	-60 to +130	12.5
T4	-60 to +60	-60 to +130	17.5
T4	-60 to +50	-60 to +130	22.5
T4	-60 to +40	-60 to +130	27.5
T3	-60 to +90	-60 to +195	2.5
T3	-60 to +75	-60 to +195	10
T3	-60 to +70	-60 to +195	12.5
T3	-60 to +60	-60 to +195	17.5
T3	-60 to +50	-60 to +195	22.5
T3	-60 to +40	-60 to +195	27.5
T2	-60 to +90	-60 to +280	2.5
T2	-60 to +75	-60 to +280	10
T2	-60 to +70	-60 to +280	12.5
T2	-60 to +60	-60 to +280	17.5
T2	-60 to +50	-60 to +280	22.5
T2	-60 to +40	-60 to +280	27.5

Schedule

13.1 Detail of changes

Issue 1

- Transfer of certificate to Danish NB – no drawing changes

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R2133/A/1	8 Jul 2019	0	Initial issue of the Prime Certificate
N/A – ExV3035	31 Oct 2020	1	Transfer of the certificate from ExVeritas UK, Notified Body number 2585 to ExVeritas Denmark, Notified Body number 2804. Certificate number remains unchanged.

14.2 Compliance Drawings:

Issue 0

Title:	Drawing No.:	Rev. Level:	Sheets	Date:
Certification Drawing Titan Ex db Switch	1340/A1	3	1 of 1	16.04.19
Certification Drawing Labels, Titan Ex db Switch	1341/A3	3	1 of 1	16.04.19

15 Conditions of Certification

15.1 Special Conditions for Safe Use

- Flameproof joints not intended for repair
- Suitably rated cable must be selected if the equipment is subject to service temperatures of 70°C or greater
- Fasteners associated with the flange flamepaths possess a minimum yield strength of 240 N/mm^2

15.2 Conditions for Use – Manufacturer's responsibility
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.

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 19.0031X** Page 1 of 4 Certificate history:

Status: **Current** Issue No: 0

Date of Issue: 2019-07-12

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

Equipment: **Titan Ex db Switch**

Optional accessory:

Type of Protection: **Flameproof Ex 'db'**

Marking: Ex db IIB + H_2 T6.....T2 Gb Tamb -60ºC to +40ºC.....+90ºC

Approved for issue on behalf of the IECEx Certification Body: **S Clarke CEng MSc MIET**

Position: **Certification Manager**

Signature:
(for printed version)

Date:

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 19.0031X**

Date of issue: 2019-07-12 Issue No: 0

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

Additional 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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

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 Report:

GB/EXV/ExTR19.0035/00

Quality Assessment Report:

GB/ITS/QAR11.0004/05

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The Titan switch is intended to sense changes in temperature, pressure, level or flow via the use of mechanical actuators. The generic two-chamber enclosure is utilised for all applications and is constructed from aluminium LM25TF or material of greater tensile strength. One chamber contains the means (where necessary) of adjusting the set-point(s) whilst the other houses either a single or dual microswitch assembly. The Titan switch possesses five flamepaths. The respective switch outer case-top cover and switch outer case-electrical entry interfaces are of the flange type. The guide-operating rod interface is of the cylindrical type. And the respective switch outer case-guide and electrical entry-adaptor interfaces are of the threaded type with the latter always utilising a suitably certified adaptor. The maximum internal free volume of the flameproof chamber is 99cc. The limits on the ambient and process temperatures and the internal power dissipation shown in the table below ensure that the equipment does not exceed the maximum surface temperature of any given T Class:

T Class	Ambient Temperature Range (°C)	Permitted Process Temperature (°C)	Power Rating (W)
T6	-60 to +75	-60 to +65	2.5
T6	-60 to +70	-60 to +65	5
T6	-60 to +60	-60 to +65	10
T6	-60 to +50	-60 to +65	15
T6	-60 to +40	-60 to +55	20
T5	-60 to +90	-60 to +80	2.5
T5	-60 to +75	-60 to +80	10
T5	-60 to +70	-60 to +75	12.5
T5	-60 to +60	-60 to +70	17.5
T5	-60 to +50	-60 to +65	22.5
T5	-60 to +40	-60 to +60	27.5
T4	-60 to +90	-60 to +130	2.5
T4	-60 to +75	-60 to +130	10
T4	-60 to +70	-60 to +130	12.5
T4	-60 to +60	-60 to +130	17.5
T4	-60 to +50	-60 to +130	22.5
T4	-60 to +40	-60 to +130	27.5
T3	-60 to +90	-60 to +195	2.5
T3	-60 to +75	-60 to +195	10
T3	-60 to +70	-60 to +195	12.5
T3	-60 to +60	-60 to +195	17.5
T3	-60 to +50	-60 to +195	22.5
T3	-60 to +40	-60 to +195	27.5
T2	-60 to +90	-60 to +280	2.5
T2	-60 to +75	-60 to +280	10
T2	-60 to +70	-60 to +280	12.5
T2	-60 to +60	-60 to +280	17.5
T2	-60 to +50	-60 to +280	22.5
T2	-60 to +40	-60 to +280	27.5

SPECIFIC CONDITIONS OF USE: YES as shown below:
Special Conditions for Safe Use

- Flameproof joints not intended for repair

IECEx Certificate of Conformity

- Suitably rated cable must be selected if the equipment is subject to service temperatures of 70°C or greater
- Fasteners associated with the flange flamepaths possess a minimum yield strength of 240 N/mm^2

Annex:

IECExEXV19.0031X Certificate Annex.pdf

Manufacturer's documents:				
Title:	Drawing No.:	Rev	Sheets	Date:
Certification Drawing Titan Ex db Switch	1340/A1	3	1 of 1	16.04.19
Certification Drawing Labels, Titan Ex db Switch	1341/A3	3	1 of 1	16.04.19

*Note: An * is included before the title of documents that are new or revised.*

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

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 21UKEX0895X	Issue: **0**
4	Product:	Titan Ex db 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

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:

Ex II 2G Ex db IIB + H_2 T6…T2 Gb Tamb -60°C to +40°C ……+90°C

UKAS PRODUCT CERTIFICATION
No. 8613

On behalf of ExVeritas

S Clarke CEng MSc FIET
Managing Director

13 Description of Product

The Titan switch is intended to sense changes in temperature, pressure, level or flow via the use of mechanical actuators. The generic two-chamber enclosure is utilised for all applications and is constructed from aluminium LM25TF or material of greater tensile strength. One chamber contains the means (where necessary) of adjusting the set-point(s) whilst the other houses either a single or dual microswitch assembly. The Titan switch possesses five flamepaths. The respective switch outer case-top cover and switch outer case-electrical entry interfaces are of the flange type. The guide-operating rod interface is of the cylindrical type. And the respective switch outer case-guide and electrical entry-adaptor interfaces are of the threaded type with the latter always utilising a suitably certified adaptor. The maximum internal free volume of the flameproof chamber is 99cc. The limits on the ambient and process temperatures and the internal power dissipation shown in the table below ensure that the equipment does not exceed the maximum surface temperature of any given T Class:

T Class	Ambient Temperature Range (°C)	Permitted Process Temperature (°C)	Power Rating (W)
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T6	-60 to +70	-60 to +65	5
T6	-60 to +60	-60 to +65	10
T6	-60 to +50	-60 to +65	15
T6	-60 to +40	-60 to +55	20
T5	-60 to +90	-60 to +80	2.5
T5	-60 to +75	-60 to +80	10
T5	-60 to +70	-60 to +75	12.5
T5	-60 to +60	-60 to +70	17.5
T5	-60 to +50	-60 to +65	22.5
T5	-60 to +40	-60 to +60	27.5
T4	-60 to +90	-60 to +130	2.5
T4	-60 to +75	-60 to +130	10
T4	-60 to +70	-60 to +130	12.5
T4	-60 to +60	-60 to +130	17.5
T4	-60 to +50	-60 to +130	22.5
T4	-60 to +40	-60 to +130	27.5
T3	-60 to +90	-60 to +195	2.5
T3	-60 to +75	-60 to +195	10
T3	-60 to +70	-60 to +195	12.5
T3	-60 to +60	-60 to +195	17.5
T3	-60 to +50	-60 to +195	22.5
T3	-60 to +40	-60 to +195	27.5
T2	-60 to +90	-60 to +280	2.5
T2	-60 to +75	-60 to +280	10
T2	-60 to +70	-60 to +280	12.5
T2	-60 to +60	-60 to +280	17.5
T2	-60 to +50	-60 to +280	22.5
T2	-60 to +40	-60 to +280	27.5

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

14.2 Compliance Drawings:

Issue 0

Title:	Drawing No:	Sheets	Rev. Level:	Date:
Certification Drawing Titan Ex db Switch	1340/A1	1 of 1	3	16.04.19
UKEX Certification Drawing, Titan Ex db Switch	2045/A3	1 of 1	1	13.07.21

15 Specific Conditions of Use

15.1 Special Conditions for Safe Use

- Flameproof joints not intended for repair
- Suitably rated cable must be selected if the equipment is subject to service temperatures of 70°C or greater
- Fasteners associated with the flange flamepaths possess a minimum yield strength of 240 N/mm^2

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.