

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:

 II 2 G Ex db IIB + H<sub>2</sub> T6.....T2 Gb Tamb -60°C to +40°C .....+90°C



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## 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

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## 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<sup>2</sup>

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.

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