



1. EC-TYPE EXAMINATION CERTIFICATE

2. Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3. EC-Type Examination Certificate Number: ITS09ATEX16146X

4. Equipment or Protective System: Titan Ex d Switch Range

5. Manufacturer: Pyropress Engineering Company

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

7. This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8. Intertek Testing and Certification Limited, notified body number 0359 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Intertek Report Ref RETS(A)2739/B/1 to RETS(A)2739/B/4 dated 26 March 2009.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with standards EN60079-0:2006, EN60079-1:2007, EN61241-0:2006 and EN61241-1:2004 except in respect of those requirements referred to at item 18 of the Schedule.

10. If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11. This EC-Type examination certificate relates only to the design and construction of the specified equipment or protective system in accordance to the directive 94/9/EC. 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 or protective system shall include the following:-



II 2 GD Ex d IIB+H₂

T_a -60°C to +75°C* T6

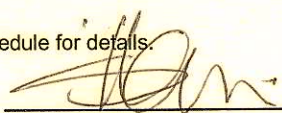
T_a -60°C to +90°C* T5

Ex tD A21 IP66

T85°C T_a -50°C to +75°C*

T100°C T_a -50°C to +90°C*

*Upper ambient dependant on internal power dissipation – see schedule for details.


S D'Henin
Certification Officer
Date: 15 April 2009

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13. SCHEDULE

14. EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS09ATEX16146

15. Description of Equipment or Protective System

The Titan Ex d switch range is used to sense changes in temperature, pressure, level or flow via mechanical actuators. A generic two-chamber enclosure is utilised for all applications, this is manufactured from either ANC4B 316 Stainless Steel or LM25TF aluminium with a magnesium content of less than 7.5% by weight. The lower chamber houses the operating rod assembly which is screwed into a ½" BSF to form a threaded flamepath. The operating rod forms a cylindrical flamepath. The upper chamber contains the electrical connection facilities and PCB. The upper chamber has an access opening, which has a flange flamepath joint. The cable entry can be fitted with a straight through adapter or 90° adapter. These adapters form a flange flamepath with the enclosure and a M20 x 1.5 or NPT equivalent threaded flamepath with the suitably certified cable entry devices.

T class/Ambient range is dependant on internal power dissipation and is defined as follows:

T class	Gas Ambient (°C)	Dust Ambient (°C)	T _{max}	Power (W)
T6	-60 to +40	-50 to +40	85°C	20
T6	-60 to +50	-50 to +50	85°C	15
T6	-60 to +60	-50 to +60	85°C	10
T6	-60 to +70	-50 to +70	85°C	5
T6	-60 to +75	-50 to +75	85°C	2.5
T5	-60 to +40	-50 to +40	100°C	27.5
T5	-60 to +50	-50 to +50	100°C	22.5
T5	-60 to +60	-50 to +60	100°C	17.5
T5	-60 to +70	-50 to +70	100°C	12.5
T5	-60 to +75	-50 to +75	100°C	10
T5	-60 to +90	-50 to +90	100°C	2.5

16. Report Number:

Intertek Report Ref RETS(A)2739/B/1 to RETS(A)2739/B/4 dated 26 March 2009.

17. CONDITIONS OF CERTIFICATION:

- (a). Special Conditions for safe use

No modifications must be made to the flamepaths of the unit without consultation of the drawings listed in 19.

If temperature at the cable entry could exceed 70°C, suitably rated cable must be selected based on the T_{max} shown above.

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(b). Conditions For Use

Use only M6x12, M5x12 and M5x35 Hex Socket fasteners with yield stress $\geq 240\text{Nmm}^2$.

18. Essential Health and Safety Requirements (EHSR's)

The relevant EHSR's have been identified and assessed in Intertek Report Ref RETS(A)2739/B/5 dated 26 March 2009.

19. Drawings and Documents

Number	Title	Issue	Date
1340-A1	Certification GA Titan, Page 1 of 1	B	24/03/09
1342-A1	Internal GA Titan Certification, Page 1 of 1	A	27/02/09
1341-A3	Label Certification Titan, Page 1 of 1	C	01/04/09

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