



- EU-TYPE EXAMINATION CERTIFICATE**
- Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**
- EU-Type Examination Certificate Number: ITS18ATEX203153X Issue 0**
- Product:** APT 500 Series Pressure Transmitter
- Manufacturer:** PSM Instrumentation Limited
- Address:** Unit 3 Burrell Road,
Haywards Heath, West Sussex,
RH16 1TW, UK
- This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Intertek Testing and Certification Limited, Notified Body number 0359 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council dated 26 February 2014, certifies that the 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 Annex II to the Directive.

The examination and test results are recorded in confidential Intertek Report Ref 103201808LHD-002, Dated: May 2018.
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2012+A11:2013 and EN 60079-11:2012 except in respect of those requirements referred to at item 16 of the Schedule.
- If the sign "X" is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Safe Use specified in the Schedule to this certificate.
- This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- The marking of the product shall include the following:

 II 1 G Ex ia IIC T4 Ga
-30°C ≤ Ta ≤ +85°C

Intertek Testing & Certification Limited
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SA
Tel: +44 (0)1372 370900 Fax: +44 (0)1372 370977
www.intertek.com

Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

V K Varma
Certification Officer
21st May 2018



SCHEDULE

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13. Description of Equipment or Protective System

The APT 500 Series level transmitters are designed for monitoring liquid levels and pressures, based on a micro-electro-mechanical (MEMS) piezo-resistive cell.

The pressure measurement cell is isolated from the process by a diaphragm with an internal fluid fill transmitting the process pressure to it. Temperature compensation and zero correction are applied during manufacture by laser trimming of compensation resistors.

The output from the measurement cell is converted by an internal circuit to a 4-20mA signal which is scaled to the user requirements.

The sensor is fully encapsulated internally and may be manufactured from a choice of construction materials for the wetted parts.

The model code is defined as follows:

APT 500 – Non-Intrinsically Safe models

APT 500/I – Intrinsically Safe, ATEX certification

APT 500/X – Intrinsically Safe, IECEx certification

The model code may be followed by other alpha-numeric characters, to define other features of the product.

Entity Parameters:

Ui = 28V
Ii = 93 mA
Pi = 0.7W
Ci = 12nF
Li=0

14. Report Number

Intertek Report Ref: 103201808LHD-002, Dated: May 2018.

15. Special Conditions of Certification

(a). Specific Conditions of Safe Use

- Non-metallic parts on the exterior of the pressure transmitter may present an electrostatic charging hazard. Refer to warning marking and the manufacturer's instructions for further guidance.
- Where external parts of the pressure transmitter incorporate light metal components (i.e. in excess of 10 % in total of aluminium, magnesium, titanium and zirconium), the sensor must be protected from impact such that impact / friction sparks cannot occur, taking into account rare malfunction.

(b). Conditions of Manufacture - Routine Tests

- None

16. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek Report Ref: 103201808LHD-002, Dated: May 2018.

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17. Drawings and Documents

Document Title	Document No.	Issue	Date
APT Parts/Exploded View	P19001-APT-GA	A	31/06/2017
APT Sensor Specification	P19011-APT-GA	A	31/06/2017
APT Board Screen Printing (5 pages)	P19012-APT-GA	B	18/04/18
APT Outline	P19000-APT-GA	A	31/06/2017
APT Local and Remote Termination Options	P19024-APT-GA	A	11/04/2018
APT 500 Series configurable 4-20mA Transmitter	P19004-APT-BOM	L	18/04/2018
APT 500 Series Top Level BOM	P19002-APT-BOM	B	09/05/2018
APT Main Board	P19003-APT-CD	C	18/04/2018
APT 500 Series MAN 085	MAN 085	C	03/05/2018
ATEX & IECEx Labels	P19013-APT-DT	C	02/05/2018
APT Board Clearance	P19020-APT-GA	A	01/03/2018
APT transmitter typical connection head	P19018-APT-GA	A	01/05/2018
APT transmitter typical connection head	P19019-APT-GA	A	01/05/2018

18. Details of Certificate changes:

Issue 0 Original Issue, May 2018

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