



EC-Type Examination Certificate

(1)

(2)

Equipment or Protective Systems Intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC

(3) EC-Type Examination Certificate Number:

FTZÚ 09 ATEX 0155X

(4) Equipment or protective system: **Temperature Transmitter type APT-2000ALW**

(5) Manufacturer: **APLISENS S.A.**

(6) Address: **ul. Morelowa 7, 03-192 Warszawa, Poland**

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

(8) The Physical Technical Testing Institute, notified body number 1026 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 Report N°

09/0155 dated 30.09.2009

(9) Compliance with Essential Health and safety requirements has been assured by compliance with:
EN 60079-0 : 2006; EN 60079-11 : 2007; EN 60079-26 : 2006;
EN 50303 : 2000; EN 61241-0 : 2006; EN 61241-11 : 2006

(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, examination and testing 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 following:



II 1/2G Ex ia IIC T4-T6 Ga/Gb



I M1 Ex ia I (version with enclosure ss316L)

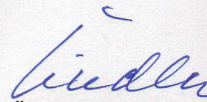


II 1D Ex iaD 20 T105°C

This EC-Type Examination Certificate is valid till: **30. 09. 2014**

Responsible person:

Date of issue: 30.09.2009


Dipl. Ing. Šindler Jaroslav
Head of certification body



Number of pages: 3
Page: 1/3

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Physical Technical Testing Institute
Ostrava-Radvanice

(13)

Schedule

(14) **EC-Type Examination Certificate N° FTZÚ 09 ATEX 0155X**

(15) Description of Equipment or Protective System:

The Temperature Transmitter type APT-2000ALW is designed to convert temperature signal into an electrical signal. The apparatus comprises several printed circuit boards and LCD, all housed in a metal enclosure which can be made of light alloy for group II applications but only of stainless steel for mine (group I) application. One of the housing cover contains a glass window if the transmitter is fitted with an optional display.

External connections are made via integral terminals and cable glands which must be of certified type if they are mounted on the version for combustible dust hazard application.

The transmitters intended as group II 1/2G equipment shall be installed into the partition between the hazardous areas of category 1G and 2G.

Temperature classes T4, T5 or T6 depend on the input power and maximum ambient temperature – see below.

Input parameters, all versions, all Ex codes:

a) supply from a power source with linear output characteristic:

$U_i = 30 \text{ V}$; $I_i = 0,1 \text{ A}$; $C_i = 20 \text{ nF}$; $L_i = 1,1 \text{ mH}$; $P_i = 0,75 \text{ W}$; $T_a = 80^\circ\text{C}$ and T4; $T_a = 70^\circ\text{C}$ and T5;
 $P_i = 0,5 \text{ W}$; $T_a = 45^\circ\text{C}$ and T6

b) supply from a power source with trapezoidal output characteristic:

$U_i = 24 \text{ V}$; $U_Q = 48 \text{ V}$; $I_i = 50 \text{ mA}$; $C_i = 20 \text{ nF}$; $L_i = 1,1 \text{ mH}$; $P_i = 0,6 \text{ W}$; $T_a = 80^\circ\text{C}$ and T5
 $P_i = 0,5 \text{ W}$; $T_a = 45^\circ\text{C}$ and T6

c) supply from a power source with rectangular output characteristic:

$U_i = 24 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 0,6 \text{ W}$; $C_i = 20 \text{ nF}$; $L_i = 1,1 \text{ mH}$ $T_a = 80^\circ\text{C}$ and T5

Degree of protection: IP 67

Minimum ambient temperature: $T_{a \text{ min}} = -40^\circ\text{C}$

(16) Report No. : 09/0155

(17) Special conditions for safe use:

17.1 For the permissible ambient temperature range see (15).

17.2 The ambient temperature range is reduced to $T_a = -20^\circ\text{C}$ to $+60^\circ\text{C}$ if the device is installed as group I M1 equipment.

(18) Essential Health and Safety Requirements:

Essential health and safety requirements of Directive 94/9/EC are covered by standards mentioned in (9), according which the product was verified and in manufacturer's instruction for use.

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 30.09.2008

Page: 2/3

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Physical Technical Testing Institute
Ostrava-Radvanice
Schedule

(14) EC-Type Examination Certificate N° FTZÚ 09 ATEX 0155X

(19)

LIST OF DOCUMENTATION

<i>Documentation:</i>	<i>Date:</i>
1. Technical documentation DT.APT-2000ALW.Ex.01	09/2009
2. Drawings No.: APT2000-A000-00	05/2009
APT2000-A000-01 (3 sheets)	05/2009
APT2000-C001-TA (2 sheets)	05/2009
APT2000-S001-01 (4 sheets)	05/2009
APT2000-B001-01 (2 sheets)	05/2009
APT2000-B002-01 (2 sheets)	05/2009
APC2000-B612-04 (8 sheets)	05/2009
APT2000-B003-01 (2 sheets)	05/2009
APT2000-B004-01 (2 sheets)	05/2009
APC2000-B617-01	07/2009
APC2000-B623-00	12/2007
APC2000-B624-00	07/2009
APT2000-A001-TA (4 sheets)	05/2009
ZA-033-04	12/2007
APT2000-B005-TA (2 sheets)	05/2009
APC2000-B622-00	12/2007
APC2000-C612-00	12/2007
ZA-027-TA	09.2009
A-188-02	09.2009
CTG1-093-TA	05/2009
CTGB1-090-TA	05/2009
CTGN1-075-TA	05/2009
CTT1-091-TA	05/2009
CTSW1/2-092-TA	05/2009
CTO-B073-TA	05/2009
CTO-B090-TA	05/2009
CTO-B087-TA	05/2009
CTO-B080-TA	05/2009
CTO-B083-TA	05/2009
CTO-B070-TA	05/2009
CTO-B072-TA	05/2009
CTO-B074-TA	05/2009
CTO-B078-TA	05/2009
CTO-B088-TA	05/2009
CTO-C122-01	05/2009
CTO-C123-01	05/2009
APC2000-C612-00	12/2007
APC2000-B622-00	12/2007
2. Analysis of EN requirements No.: AN.APT-2000ALW.Ex.01 (13 pages and annexes No.1-15)	05/2009
3. Instruction manual No. DTR.APT.ALW.01 (25 pages)	09/2008

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Page: 3/3

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