



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

This certificate is granted subject to the general conditions of the Physical Technical Testing Institute.
This certificate may only be reproduced in its entirety and without any change, schedule included.



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: _____

Date of issue: 30.09.2008


Dipl. Ing. Šindler Jaroslav
Head of certification body

Page: 2/3


This certificate is granted subject to the general conditions of the Physical Technical Testing Institute.
This certificate may only be reproduced in its entirety and without any change, schedule included.



Physical Technical Testing Institute
Ostrava-Radvanice
Schedule

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

(19)

LIST OF DOCUMENTATION

Documentation:	Date:
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

Responsible person:

Dipl. Ing. Sindler Jaroslav
Head of certification body

Date of issue: 30.09.2009

Page: 3/3

This certificate is granted subject to the general conditions of the Physical Technical Testing Institute.
This certificate may only be reproduced in its entirety and without any change, schedule included.





(1)

Supplement No. 1 to EC-Type Examination Certificate

(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 supplement of certificate is valid for:

- modification of certified apparatus
- modification of apparatus marking
- new model (variant) – extension of series


(8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.

(9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 Paragraph 6) of Directive No. 94/9/EC. The Directive contains another requirements, which manufacturer shall fulfil before products are place on market or introduce in service.

(10) Safety requirements of modified parts were fulfilled by satisfying the following standards:

EN 60079-0 :2009; EN 60079-11:2007; EN 60079-26:2007, EN 61241-11:2006, EN 50303:2000

(11) Marking of equipment shall contain symbols:

 **II 1/2G Ex ia IIC T4/T5/T6 Ga/Gb**

 **I M1 Ex ia I Ma (version with enclosure ss316)**

 **II 1D Ex ia IIIC T105°C Da**

(12) This type examination certificate is valid till: **30. 09. 2014**

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 29.11.2011

Number of pages: 3
Page: 1/3

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute.
This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.



Physical Technical Testing Institute
Ostrava-Radvanice

(13) **Schedule**

(14) **Supplement No. 1 to
EC-Type Examination Certificate N° FTZÚ 09 ATEX 0155X**

(15) Description of Equipment or Protective System:

Variation one, to permit:

- a) Version of transmitter is added with the revised filter PCB and changed values of $C_i = 30 \text{ nF}$, $L_i = 0.75 \text{ mH}$, and ambient temperature $-25^\circ\text{C} \leq T_a \leq 55^\circ\text{C}$.
- b) Added new cover version with increased light-permeable surface.
- c) Material of housing expanded for two light alloys.
- d) The transmitters with light alloy casing can be used in gas, and combustible dust atmospheres in Group II and III.
- e) Replacement of electronic components with equivalents, mechanical changes described in updated documentation.
- f) Added new types of thermowells.
- g) Other changes not affect the intrinsic safety.
- h) Degrees of protection provided by enclosures: IP 66, IP 67
- i) The certified apparatus complies with requirements of upgraded standards listed in (10).
- j) New values of input parameters for temperature class T6: $P_i = 0,45\text{W}$ $T_a = 40^\circ\text{C}$.
- k) Other technical parameters remain unchanged.

(16) Report No.: 09/0155/1

(17) Special conditions for safe use: without changes

(18) Essential Health and Safety Requirements:

Covered by standards mentioned in (10).

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 29.11.2011

Page: 2/3

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute.
This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, tel +420 596 232 715, fax +420 596 232 672, e-mail: ftzu@ftzu.cz



Physical Technical Testing Institute
Ostrava-Radvanice

(13) Schedule

(14) Supplement No. 1 to
EC-Type Examination Certificate N° FTZÚ 09 ATEX 0155X

(19) LIST OF DOCUMENTATION

<i>Documentation:</i>	<i>Date:</i>	<i>Page Nr.</i>
• Drawings No.: APT2000-A600-02	09.2011	1-2
APT2000-A000-00	09.2011	1-2
APT2000-A000-01	09.2011	1A,2A,3A
APT2000-C001-TA	09.2011	1-5
APT2000-C071-01	09.2011	1
APT2000-C071-02	09.2011	1
APT2000-C071-03	09.2011	1
APT2000-S001-01	09.2011	4A,4B
APC2000-S671-01	02.2011	1
APT2000-B001-01	09.2011	1A,2A
APT2000-B002-01	09.2011	1A,2A
APC2000-B671-01	02.2011	1,2
APC2000-B612-04	09.2011	6A
APT2000-B004-01	09.2011	1A,2A
APC2000-S617-01	01.2010	1A
APC2000-S624-00	03.2011	1B
APT2000-A001-TA	09.2011	1A,2A,3A,4A
APT2000-B005-TA	09.2011	1-4
ZA-027-TA	02.2011	1A
APT2000-A071-00	10.2010	1-2
WGB1-B024-TA	03.2011	1
CTA-C079-TA	03.2011	1
CTO-B090-TA	01.2010	1A
CTO-B080-TA	01.2010	1A
APT2000-B022-TA	01.2010	1
CTO-B076-TA	01.2010	1
CTO-B071-TA	01.2010	1
CTA-C039-TA	01.2010	1
CTA-C041-TA	01.2010	1
CTO-B100-TA	01.2010	1
CTA-C014-01	01.2010	1
CTO-B110-TA	01.2010	1
CTA-C017-01	01.2010	1
CTO-B120-01	01.2010	1
CTO-B130-01	01.2010	1
CTH-C007-TA	02.2010	1
• Supplement of analysis of EN requirements No: U1-AN.APT-2000ALW.Ex.01	09.2011	3 pages+3 annexes
• Instruction manual: DTR.APT.ALW.03	05.2011	36 pages

Responsible person:

Dipl. Ing. Sindler Jaroslav
Head of certification body



Date of issue: 29.11.2011

Page: 3/3

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute.
This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, tel +420 596 232 715, fax +420 596 232 672, e-mail: ftzu@ftzu.cz



(1) **Supplement No. 2 to
EC-Type Examination Certificate**

(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 supplement of certificate is valid for: - modification of certified apparatus
- prolongation of certificate validity

(8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.

(9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 Paragraph 6) of Directive No. 94/9/EC. The Directive contains another requirements, which manufacturer shall fulfil before products are place on market or introduce in service.

(10) Safety requirements of modified parts were fulfilled by satisfying the following standards:

EN 60079-0:2012, EN 60079-11:2012, EN 60079-26:2007, EN 50303:2000

(11) Marking of equipment shall contain symbols:



II 1/2G Ex ia IIC T4/T5/T6 Ga/Gb



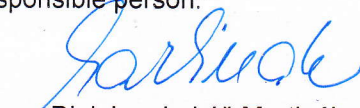
I M1 Ex ia I Ma (version with enclosure ss316)



II 1D Ex ia IIIC T105°C Da

(12) This type examination certificate is valid till: **30.09.2019**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 26.09.2014

Page: 1/3

This supplement to certificate is granted subject to the general conditions of the FTZÚ, s.p.
This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.



Physical Technical Testing Institute
Ostrava – Radvanice

(13)

Schedule

(14)

Supplement No. 2 to
EC-Type Examination Certificate N° FTZÚ 09 ATEX 0155X

(15) Description of Equipment or Protective System:

There are minor changes in mechanical construction of apparatus without influence to current level of safety.

Technical data and construction of apparatus, listed in the basic certificate and Supplements No. 1 remain unchanged.

(16) Report No.: 09/0155/2

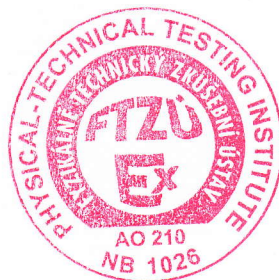
(17) Special conditions for safe use: without changes

(18) Essential Health and Safety Requirements:

Essential health and safety requirement of Directive 94/9/EC are covered by the standards mentioned in clause (10) of this supplement according which the new model was verified and in the manufacturer's Instruction for Using.

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 26.09.2014

Page: 2/3

This supplement to certificate is granted subject to the general conditions of the FTZÚ, s.p.
This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.



Physical Technical Testing Institute
Ostrava – Radvanice

(13)

Schedule

(14)

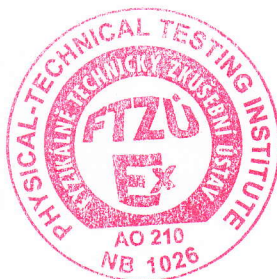
Supplement No. 2 to
EC-Type Examination Certificate N° FTZÚ 09 ATEX 0155X

(19) List of documentation:

<i>Document name / Drawing:</i>	<i>Sheet:</i>	<i>Date:</i>	<i>Nr. of Pages:</i>
DTR.APT.ALW.03	1-40	04.2014	40
APT2000-A600-02	1	05.2014	1
APT2000-A000-00	1A, 2A	05.2014	2
APT2000-A000-01	2B	05.2014	1
APT2000-C001-TA	1A, 2A, 3A, 4A, 5A, 6	05.2014	6
APC2000-B612-04	6B	05.2014	1
APT2000-A001-TA	1B, 3B, 4B	05.2014	3
ZA-033-04	1A	03.2014	1
APT2000-B005-TA	1A, 2A, 4A	05.2014	3
ZA-065-TA	1A	04.2014	1
ZA-068-TA	1A	06.2013	1
CTG1-093-TA	1	05.2014	1
CTGB1-090-TA	1	05.2014	1
CTGN1-075-TA	1	05.2014	1
CTT1-091-TA	1	05.2014	1
CTSW1(2)-092-TA	1	05.2014	1
CTO-B073-TA	1	05.2014	1
CTO-B090-TA	1A	05.2014	1
CTO-B087-TA	1	05.2014	1
CTO-B080-TA	1A	05.2014	1
CTO-B083-TA	1	05.2014	1
CTO-B070-TA	1	05.2014	1
CTO-B072-TA	1	05.2014	1
CTO-B074-TA	1	05.2014	1
CTO-B078-TA	1	05.2014	1
CTO-B088-TA	1	05.2014	1
CTO-B162-TA	1	09.2012	1
CTO-B160-TA	1	05.2014	1
APT2000-B022-TA	1A	07.2013	1
CTO-B071-TA	1A	07.2013	1
CTO-C039-TA	1A	07.2013	1
CTO-B100-TA	1	01.2010	1
CTO-B157-TA	1	02.2012	1
CTO-B056-TA	1	10.2010	1
CTO-C173-01	1	03.2011	1

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 26.09.2014

Page: 3/3

This supplement to certificate is granted subject to the general conditions of the FTZÚ, s.p.
This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.



(1) **Supplementary EU - Type Examination Certificate No.3**

(2) **Equipment or Protective Systems Intended for Use
in Potentially Explosive Atmospheres
(Directive 2014/34/EU)**

(3) EU - Type Examination Certificate number:

FTZÚ 09 ATEX 0155X

(4) Product: **Temperature Transmitter type APT-2000ALW**

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

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

(7) This supplementary certificate extends EC - Type Examination Certificate No. FTZÚ 09 ATEX 0155X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

(8) The Physical-Technical Testing Institute, Notified Body number 1026, in accordance with Articles 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26.02.2014, certifies that this product, as modified by this supplementary certificate, 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.

(9) In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20.04.2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20.04.2016.


(10) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012+A11:2013, EN 60079-11:2012, EN 50303:2000

(11) The marking of the product shall include the following:

 **II 1/2G Ex ia IIC T4/T5/T6 Ga/Gb**

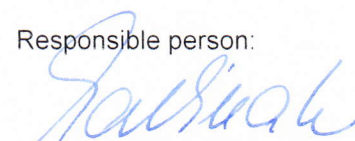
 **I M1 Ex ia I Ma**

 **II 1D Ex ia IIIC T105°C Da**

version with enclosure ss316

(12) This certificate is valid till: **30.09.2024**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 01.10.2019

Page: 1/4



Physical-Technical Testing Institute
Ostrava - Radvanice

(13)

Schedule

(14) **Supplementary EU - Type Examination Certificate No. 3
to FTZÚ 09 ATEX 0155X**

(15) Description of the variation to the Product:

The subject of this supplementary certificate is:

- Modification of certified apparatus;
- Modification of apparatus marking;
- Modification of apparatus documentation;
- Evaluation according to actual standards;
- Prolongation of certificate validity.

This supplementary certificate accepts these changes of the Product:

Updating of documentation.

Added new version of main PCB MPC5-rev 2.1.2.

Added new connection PCB MPC5-FH-Exi_Ext-rev2, new inside parameters of product:
 $C_i = 2.5 \text{ nF}$, $L_i = 18 \text{ }\mu\text{H}$.

There are minor change in used electrical components and mechanical parts.

Introduced version of transmitter allowed for hazardous explosive gas atmospheres with minimum ambient temperature $T_a \geq -50^\circ\text{C}$.

Temperature class of apparatus with main PCB MPC5-rev2.1.2 is changed to T4/T5.

Intrinsically safe input power supply parameters of apparatus with PCB MPC5-FH-Exi_Ext-rev2:

Linear power supply output characteristic:

$U_i = 30 \text{ V}$; $I_i = 0.1 \text{ A}$; $P_i = 0.75 \text{ W}$; $T_a \leq 80^\circ\text{C}$ – Temperature Class T4,
 $T_a \leq 70^\circ\text{C}$ – Temperature Class T5

Trapezoidal power supply output characteristic:

$U_i = 24 \text{ V}$; $I_i = 50 \text{ mA}$; $P_i = 0.7 \text{ W}$; temperature class T5

Rectangular power supply output characteristic:

$U_i = 24 \text{ V}$; $I_i = 25 \text{ mA}$, $P_i = 0.6 \text{ W}$; temperature class T5

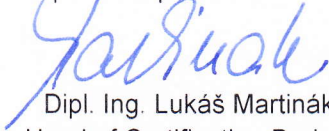
Intrinsically safe parameters

$C_i = 2.5 \text{ nF}$; $L_i = 18 \text{ }\mu\text{H}$,

Range of permissible ambient temperature: $T_a = -50^\circ\text{C}$ to $+80^\circ\text{C}$ for category 1G/2G

Range of permissible ambient temperature: $T_a = -40^\circ\text{C}$ to $+80^\circ\text{C}$ for category 1D and M1

Responsible person:


Dipl. Ing. Lukáš Martinák

Head of Certification Body



Date of issue: 01.10.2019

Page: 2/4



Physical-Technical Testing Institute
Ostrava - Radvanice

(13)

Schedule

(14) **Supplementary EU - Type Examination Certificate No. 3
to FTZÚ 09 ATEX 0155X**

(16) Report Number.: 09/0155/3

(17) Specific Conditions of Use:

1. For the permissible ambient temperature range see (15).
2. Versions of transmitter with surge arrester marked on plate "SA", do not meet the requirements of Section 10.3 of the standard EN 60079-11:2012 (500Vrms). This must be taken into account when installing the equipment.
3. Under certain extreme circumstances in dust explosive atmospheres, the device with painting of aluminum enclosure and with plastic labels may store an ignition-capable level of electrostatic charge. The device shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge.

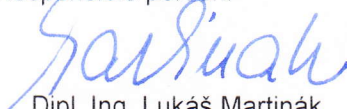
(18) Essential Health and Safety Requirements:

Compliance with the Essential Health and Safety Requirements is covered by standards mentioned in clause (10) of this supplementary certificate.

(19) Drawings and Documents:

Title / Drawing No.	Sheet:	Date:	Nr. of Pages:
DTR.APT.ALW.03	1-44	06.2019	44
APT2000-A000-00	1B, 2B	05.2019	2
APT2000-A000-01	1B, 2C, 3B	05.2019	3
(CER.Exi) APT2000-C002-TA	1, 2	05.2019	2
(CER.Exi) APT2000-A002-TA	1, 2, 3	05.2019	3
APC2000-S647-TA	1	04.2018	1
APC2000-B647-TA	1, 2, 3	04.2018	3

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 01.10.2019

Page: 3/4



Physical-Technical Testing Institute
Ostrava - Radvanice

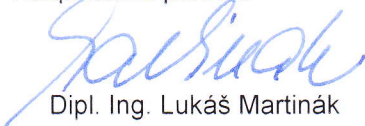
(13)

Schedule

(14) **Supplementary EU - Type Examination Certificate No. 3
to FTZÚ 09 ATEX 0155X**

Title / Drawing No.	Sheet:	Date:	Nr. of Pages:
APC2000-B612-04	6C	05.2019	1
(CER.Ex) APC2000-S659-TA	1	06.2018	1
(CER.Ex) APC2000-B659-TA	1 – 9	07.2018	9
(CER.Ex) APC2000-B660-TA	1	07.2018	1
LI24ALW-B006-01	1	08.2013	1
APC2000-B606-TA	1, 2	01.2016	2
ZA-033-04	1B	05.2019	1
ZA-033-06	1	08.2018	1
ZA-065-TA	1B	08.2018	1
ZA-083-TA	1A	08.2018	1
(CER.FM) APC2000-B643-TA	1, 2	07.2018	2
APT2000-B005-TA	1B, 2B, 3A	05.2019	3
CTG1-093-TA	1A	03.2019	1
CTGB1-090-TA	1A	10.2018	1
CTGN1-075-TA	1A	10.2018	1
CTT1-091-TA	1A	03.2019	1
CTSW1(2)-092-TA	1A	03.2019	1
CTO-B087-TA	1A	09.2018	1
CTO-B100-TA	1A	03.2019	1
CTO-B110-TA	1A	03.2019	1
CTO-B120-01	1	03.2019	1
CTO-B130-01	1	03.2019	1
CTO-B157-TA	1A	04.2019	1
U2.AN.APT2000-ALW.EX.01	1-8	06.2019	8

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 01.10.2019

Page: 4/4



(1) **Supplementary EU - Type Examination Certificate No. 4**

(2) **Equipment or Protective Systems Intended for Use
in Potentially Explosive Atmospheres
(Directive 2014/34/EU)**

(3) EU - Type Examination Certificate number:

FTZÚ 09 ATEX 0155X

(4) Product: **Temperature Transmitter type APT-2000ALW**

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

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

(7) This supplementary certificate extends EC - Type Examination Certificate No. FTZÚ 09 ATEX 0155X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

(8) The Physical-Technical Testing Institute, Notified Body number 1026, in accordance with Articles 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26.02.2014, certifies that this product, as modified by this supplementary certificate, 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.

(9) In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20.04.2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20.04.2016.

(10) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018, EN 60079-11:2012, EN 50303:2000

If the sign "X" is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use specified in the schedule to this certificate.

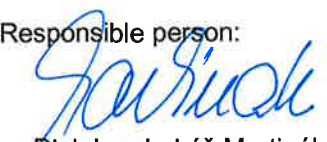
(11) The marking of the product shall include the following:

 **II 1/2G Ex ia IIC T4/T5 Ga/Gb**
 **I M1 Ex ia I Ma**
 **II 1D Ex ia IIIC T115 °C Da**

version with enclosure ss316

(12) This certificate is valid till: **30.09.2029**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 24.09.2024

Page: 1/3

This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.



**Physical-Technical Testing Institute
Ostrava - Radvanice**

(13)

Schedule

(14) **Supplementary EU - Type Examination Certificate No. 4
to FTZÚ 09 ATEX 0155X**

(15) Description of the variation to the Product:

The subject of this supplementary certificate is:

- Modification of product's marking.
- Evaluation according to the newest standards.
- Extension of certificate validity.

The subject of this supplementary certificate is extension of certificate validity, evaluation of product according to the newest standards and modification of product marking. The construction and electrical parameters of certified product remain unchanged.

The product marking for explosive atmosphere with dust is modified, the surface temperature is changed from $T_{s1} = 105\text{ °C}$ to $T_{s2} = 115\text{ °C}$.

New marking:

 II 1D Ex ia IIC T115 °C Da

Description of the product (recapitulation):

The Temperature Transmitter type APT-2000ALW is designed to convert measured temperature 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 covers contains a glass window.

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 can be installed into the partition between the hazardous areas of category 1G and 2G.

Intrinsically safe input power supply parameters of product.

Linear power supply output characteristic:

$U_i = 30\text{ V}$; $I_i = 0.1\text{ A}$; $P_i = 0.75\text{ W}$; $T_a \leq 80\text{ °C}$ – Temperature Class T4,
 $T_a \leq 70\text{ °C}$ – Temperature Class T5

Trapezoidal power supply output characteristic:

$U_i = 24\text{ V}$; $U_q = 48\text{ V}$; $I_i = 50\text{ mA}$; $P_i = 0.6\text{ W}$; temperature class T5

Rectangular power supply output characteristic:

$U_i = 24\text{ V}$; $I_i = 25\text{ mA}$; $P_i = 0.6\text{ W}$; temperature class T5

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 24.09.2024

Page: 2/3

This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
tel.: +420 595 223 111, +420 604 203 525, e-mail: ftzu@ftzu.cz, www.ftzu.cz



Physical-Technical Testing Institute
Ostrava - Radvanice

(13)

Schedule

(14) **Supplementary EU - Type Examination Certificate No. 4
to FTZÚ 09 ATEX 0155X**

(15) Description of the variation to the Product (continuing):

Intrinsically safe parameters

Ci = 20 nF; Li = 1.1 mH standard version

Ci = 30 nF; Li = 0.75 mH special version

Range of permissible ambient temperature: Ta = -50 °C to +80 °C for category 1G/2G

Range of permissible ambient temperature: Ta = -40 °C to +80 °C for category 1D and M1

Degree of protection by enclosure: IP66, IP67

(16) Report Number: 09/0155/4

(17) Specific Conditions of Use (recapitulation):

1. For the permissible ambient temperature range see (15).
2. Versions of transmitter with surge arrester marked on plate "SA", do not meet the requirements of Section 10.3 of the standard EN 60079-11:2012 (500 Vrms). This must be taken into account when installing the equipment.
3. Under certain extreme circumstances in dust explosive atmospheres, the device with painting of aluminium enclosure and with plastic labels may store an ignition-capable level of electrostatic charge. The device shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge.


(18) Essential Health and Safety Requirements:

Compliance with the Essential Health and Safety Requirements is covered by standards mentioned in clause (10) of this supplementary certificate.

(19) Drawings and Documents:

Number	Issue	Sheets	Date	Description
DTR.APT.ALW.03(ENG)	D	44	07.2024	User's Manual
EN.IO.APT.ALW.MID	A	26	09.2024	User's Manual
APT2000-A600-02	-	1	07.2024	Change sheet no. 4
APT2000-A000-00	1C	1	07.2024	List of documents
(CER.Exi)APT2000-C002-TA	1A	1	07.2024	Marking label

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 24.09.2024

Page: 3/3

This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.