



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 08 ATEX 0020

- (4) Equipment or protective system:
**Pressure Transmitter type APC-2000ALW/XX, Differential Pressure Transmitters type
APR-2000ALW/XX, APR-2200ALW/XX, APR-2000GALW/XX and APR-2000YALW/XX**

- (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°

08/0020 dated 31.03.2008

- (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 : 2004

- (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/T5

This EC-Type Examination Certificate is valid till: **31. 03. 2013**

Responsible person:

Dipl. Ing. Šindler Jaroslav

Head of certification body



Date of issue: 31.03.2008

Number of pages: 3

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Physical Technical Testing Institute
Ostrava-Radvanice

(13)

Schedule

(14) **EC-Type Examination Certificate N° FTZÚ 08 ATEX 0020**

(15) Description of Equipment or Protective System:

The Pressure Transmitter type APC-2000ALW/XX, Differential Pressure Transmitters type APR-2000ALW/XX, APR-2200ALW/XX, APR-2000GALW/XX and APR-2000YALW/XX

Pressure Transmitters are designed to convert process pressure measurements into a 4 to 20 mA current signal. The apparatus comprises several printed circuit boards and an optional liquid crystal display all housed in a light alloy enclosure. When the optional display is included, the housing cover contains a glass window. External connections are made via an integral terminal block.

The transmitters are allowed to be installed into the partition between the hazardous areas of category 1G and category 2G.

Input parameters:

Linear power supply output characteristic:

$U_i = 28 \text{ V}$; $I_i = 0,1 \text{ A}$; $P_i = 0,7 \text{ W}$; $C_i = 20 \text{ nF}$; $L_i = 1,1 \text{ mH}$, temperature class T5

Range of permissible ambient temperature: $T_a = - 40^\circ\text{C}$ to $+ 70^\circ\text{C}$

Trapezoidal power supply output characteristic:

$U_i = 24 \text{ V}$; $I_i = 50 \text{ mA}$; $P_i = 0,7 \text{ W}$; $C_i = 20 \text{ nF}$; $L_i = 1,1 \text{ mH}$, temperature class T5

Range of permissible ambient temperature: $T_a = - 40^\circ\text{C}$ to $+ 80^\circ\text{C}$

Rectangular power supply output characteristic:

$U_i = 24 \text{ V}$; $I_i = 25 \text{ mA}$, $P_i = 0,6 \text{ W}$; $C_i = 20 \text{ nF}$; $L_i = 1,1 \text{ mH}$, temperature class T5

$U_i = 24 \text{ V}$; $I_i = 50 \text{ mA}$, $P_i = 1,2 \text{ W}$; $C_i = 20 \text{ nF}$; $L_i = 1,1 \text{ mH}$, temperature class T4

Range of permissible ambient temperature: $T_a = - 40^\circ\text{C}$ to $+ 80^\circ\text{C}$


(16) Report No. : 08/0020

(17) Special conditions for safe use: none

(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: 31.03.2008

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Physical Technical Testing Institute
Ostrava-Radvanice

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(14) **EC-Type Examination Certificate N° FTZÚ 08 ATEX 0020**

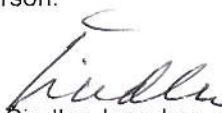
(19)

LIST OF DOCUMENTATION

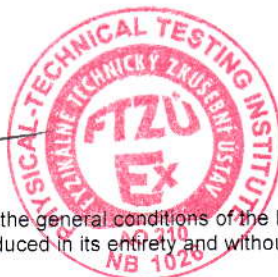
<i>Documentation:</i>	<i>Date:</i>
1. Technical documentation	12/2007
2. Drawings No.:	
APC2000-A610-00 (2 sheets)	12/2007
APC2000-A610-01 (3 sheets)	12/2007
APC2000-A610-02 (1 sheet)	12/2007
APC2000-C611-TA (3 sheets)	12/2007
APC2000-S611-01 (4 sheets)	12/2007
APC2000-B611-01 (2 sheets)	12/2007
APC2000-B612-01 (8 sheets)	12/2007
APC2000-B614-01 (3 sheets)	12/2007
APC2000-B615-01 (1 sheet)	12/2007
APC2000-B616-01 (1 sheet)	12/2007
APR2000-B617-01 (1 sheet)	12/2007
APC2000-B623-00 (2 sheets)	12/2007
APR2000-B624-00 (2 sheets)	12/2007
APC2000-A611-TA (2 sheets)	12/2007
APR2000-A611-TA (2 sheets)	12/2007
APR2000-A612-TA (3 sheets)	12/2007
APR2000-A613-TA (2 sheets)	12/2007
APC2000-A612-TA (1 sheet)	12/2007
APR2000-A614-TA (1 sheet)	12/2007
ZA-033-04 (1 sheet)	12/2007
APC2000-B618-TA (2 sheets)	12/2007
APR2000-B619-TA (3 sheets)	12/2007
APR2000-B620-01 (2 sheets)	12/2007
APR2000-B621-01 (2 sheets)	12/2007
APC2000-B622-00 (1 sheet)	12/2007
APC2000-C612-00 (1 sheet)	12/2007
ZA-053-01 (1 sheet)	12/2007
ZG-002-TA (1A sheet)	12/2007
ZG-006-TA (1A sheet)	12/2007
GC1-007-TA (3 sheets)	12/2007
GC3-001-TA (3 sheets)	12/2007
GC3-003-TA (2 sheets)	12/2007
GC4-001-TA (3 sheets)	12/2007
GC4-005-TA (3 sheets)	12/2007
GR40-001-TA (2B sheets)	12/2007
GR40-002-TA (1 sheet)	12/2007
GR40-003-TA (1B sheet)	12/2007
3. Analysis of EN requirements No.: AN.APC-2000ALW.Ex.01 (13 pages and 15 annexes)	12/2007
4. Instruction manual No. DTR.APC.APR.ALW.01	03/2008

Responsible person:

Date of issue: 31.03.2008


Dipl. Ing. Sindler Jaroslav
Head of certification body

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(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 08 ATEX 0020

(4) Equipment or protective system:

**Pressure Transmitter type APC-2000ALW/XX, Differential Pressure Transmitters type
APR-2000ALW/XX, APR-2200ALW/XX, APR-2000GALW/XX and APR-2000YALW/XX**

(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

(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:

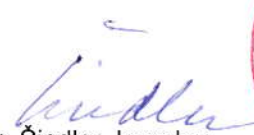
EN 60079-0 : 2006; EN 60079-11 : 2007; EN 60079-26 : 2004

(11) Marking of equipment shall contain symbols:

 **II 1/2G Ex ia IIC T4/T5**

(12) This type examination certificate is valid till: **31. 03. 2013**

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 10.03.2010

Number of pages: 3
Page: 1/3

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**Physical Technical Testing Institute
Ostrava-Radvanice**

(13) **Schedule**

(14) **Supplement No. 1 to
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0020**

(15) Description of Equipment or Protective System:

Variation one, to permit:

Number of changes concerning both the mechanical construction and electronic design as described in updated drawings – see below. None of the changes affects intrinsic safety level.

Technical parameters remain unchanged.

(16) Report No.: 08/0020/1

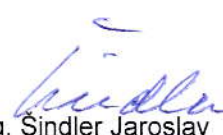
(17) Special conditions for safe use: -

(18) Essential Health and Safety Requirements:

Covered by standards mentioned in (10).

Responsible person:

Date of issue: 10.03.2010


Dipl. Ing. Šindler Jaroslav
Head of certification body



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Physical Technical Testing Institute
Ostrava-Radvanice

(13)

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(14)

Supplement No. 1 to

EC-Type Examination Certificate N° FTZÚ 08 ATEX 0020


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LIST OF DOCUMENTATION

Documentation:		Date:
• Drawings No.:	APC2000-A610-02 (2 sheets)	01/2010
	APC2000-A610-00 (2 sheets)	01/2010
	APC2000-A610-01 (sheet 3A)	01/2010
	APC2000-C611-01 (sheet 4A)	01/2010
	APC2000-B612-01 (sheets 1A, 3A, 6A, 7A)	01/2010
	APC2000-B613-01 (sheet 3A)	01/2010
	APC2000-B614-01 (sheet 3A)	01/2010
	APC2000-B617-01 (sheet 1A)	01/2010
	APC2000-B627-01 (2 sheets)	09/2009
	PC29-B012-01 (1 sheet)	09/2009
	PC29-B013-01 (1 sheet)	10/2009
	PC29-B014-01 (1 sheet)	10/2009
	APC2000-B624-00 (sheet 1A)	07/2009
	APC2000-A611-TA (3 sheets, 1A, 2A, 3A)	01/2010
	APR2000-A611-TA (3 sheets, 1A, 2A, 3A)	01/2010
	APR2000-A612-TA (3 sheets, 1A, 2A, 3A)	01/2010
	APR2000-A613-TA (3 sheets)	01/2010
	APC2000-A618-TA (3 sheets)	01/2010
	APR2000-B619-TA (4 sheets)	01/2010
	APR2000-B620-TA (3 sheets)	01/2010
	APR2000-B621-TA (3 sheets)	01/2010
	GC1-007-TA (3 sheets, 1A, 2A, 3A)	01/2010
	GC3-001-TA (3 sheets, 1A, 2A, 3A)	10/2009
	GC3-003-TA (2 sheets, 1A, 2A)	01/2010
	GC4-001-TA (3 sheets, 1A, 2A, 3A)	01/2010
	GC4-005-TA (3 sheets, 1A, 2A, 3A)	01/2010
	GR40-001-TA (2 sheets, 1C, 2C)	01/2010
	GR40-003-TA (1 sheet, 1C)	12/2009

Responsible person:

Date of issue: 10.03.2010


Dipl. Ing. Šindler Jaroslav
Head of certification body



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(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 08 ATEX 0020

(4) Equipment or protective system:

**Pressure Transmitter type APC-2000ALW/XX, Differential Pressure Transmitters type
APR-2000ALW/XX, APR-2200ALW/XX, APR-2000GALW/XX and APR-2000YALW/XX**

(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 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: **31. 03. 2013**

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 21.07.2011

Number of pages: 3
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**Physical Technical Testing Institute
Ostrava-Radvanice**

(13) **Schedule**

(14) **Supplement No. 2 to
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0020**

(15) Description of Equipment or Protective System:

Variation two, 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 versions of transmitter of Group III and Group I
- c) Added new cover version with a window made of polycarbonate with increased light-permeable surface.
- d) Material of housing expanded for two light alloys and stainless steel ss316.
- e) The transmitters with light alloy casing can be used in gas, and combustible dust atmospheres in Group II and III, but only with stainless steel housing in Group I applications.
- f) Replacement of electronic components with equivalents, mechanical changes described in updated documentation
- g) The certified apparatus complies with requirements of upgraded standards listed in (10).
- h) Other changes not affect the intrinsic safety.
- i) Other technical parameters remain unchanged.

(16) Report No.: 08/0020/2

(17) Special conditions for safe use: -

(18) Essential Health and Safety Requirements:

Covered by standards mentioned in (10).

Responsible person:


Dipl. Ing. Sindler Jaroslav
Head of certification body



Date of issue: 21.07.2011

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Physical Technical Testing Institute
Ostrava-Radvanice

(13)

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Supplement No. 2 to


EC-Type Examination Certificate N° FTZÚ 08 ATEX 0020

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LIST OF DOCUMENTATION

<i>Documentation:</i>	<i>Date:</i>
1. Drawings No.:	
APC2000-A610-00 (sheets 1B, 2B)	03/2011
APC2000-A610-01 (sheet 1A, 2A, 3B)	03/2011
APC2000-C611-TA (4 sheets)	03/2011
APC2000-C671-01 (1 sheet)	03/2011
APC2000-C671-02 (1 sheet)	03/2011
APC2000-C671-03 (1 sheet)	03/2011
APC2000-S671-01 (1 sheet)	03/2011
APC2000-B671-01 (2 sheets)	02/2011
APC2000-B612-01 (sheet 6B)	03/2011
PC29-B012-02 (1 sheet)	12/2010
APC2000-B624-00 (sheet 1B)	03/2011
APC2000-A611-TA (sheets 1B, 2B, 3B)	03/2011
APR2000-A611-TA (sheets 1B, 2B, 3B)	03/2011
APR2000-A612-TA (sheets 1B, 3B)	03/2011
APR2000-A613-TA (sheets 1A, 2A, 3A)	03/2011
APC2000-B618-TA (sheet 3A)	03/2011
ZA-027-TA (1 sheet)	03/2011
EP-232-01 (1 sheet)	02/2011
APC2000-A671-00 (2 sheets)	10/2010
GR40-001-TA (sheets 1D, 2D)	09/2010
2. Supplement of analysis of EN requirements No.: U1-AN.APC-2000ALW.Ex.01 (3 pages and 3 annexes)	03/2011
3. Instruction manual No.: DTR.APC.APR.ALW.03	03/2011

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 21.07.2011

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(1) **Supplement No. 3 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 08 ATEX 0020

(4) Equipment or protective system:

**Pressure Transmitter type APC-2000ALW/XX, Differential Pressure Transmitters type
APR-2000ALW/XX, APR-2200ALW/XX, APR-2000GALW/XX and APR-2000YALW/XX**

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

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

(7) This supplement of certificate is valid for: - 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 60079-0:2009; 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 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. 01. 2017**

Responsible person:


Dipl. Ing. Sindler Jaroslav
Head of certification body



Date of issue: 30.01.2012

Number of pages: 2
Page: 1/2



**Physical Technical Testing Institute
Ostrava-Radvanice**

(13) **Schedule**

(14) **Supplement No. 3 to
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0020**

(15) Description of Equipment or Protective System:

Variation three, to permit:

The validity of the certificate is prolonged till 30.01.2017.

Technical data remain unchanged.

The certified apparatus is manufactured according to the verified documentation shown in the basic certificate, the Supplements No. 1 to No. 2 and in this Supplement.

(16) Report No.: 08/0020/3

(17) Special conditions for safe use: -

(18) Essential Health and Safety Requirements:

Covered by standards mentioned in (10).

(19) List of Documentation: -

Responsible person:

Date of issue: 30.01.2012


Dipl. Ing. Šindler Jaroslav
Head of certification body



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Supplement No. 4 to 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 08 ATEX 0020X

(4) Equipment or protective system:

**Pressure Transmitter type APC-2000ALW/XX, Differential Pressure Transmitters type
APR-2000ALW/XX, APR-2200ALW/XX, APR-2000GALW/XX and APR-2000YALW/XX**

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

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

(7) This supplement of certificate is valid for: - application of new standards
- modification of apparatus marking
- modification of certified apparatus
- new model (variant)—extension of series **APC-2000ALW/LXX**

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

(11) Marking of equipment shall contain symbols:



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



II 1/2G Ex ia IIB T4/T5 Ga/Gb

version with teflon-shielded cable



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: **30.01.2017**

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 07.03.2013

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Physical Technical Testing Institute
Ostrava – Radvanice

(13)

Schedule

(14)

Supplement No. 4 to
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0020X

(15) Description of Equipment or Protective System:

Added version of transmitter with revised filter PCB and changed values $C_i = 2.5\text{nF}$, $L_i = 18\ \mu\text{H}$, marked on the label as version „SC“.

Added new printed circuit board PCB A/D MPC5-AD-rev4.

Introduces transmitters marked **APC-2000ALW/LXX** with sensor on the cable.

Minor changes with no influence to intrinsic safety.

Other technical parameters and construction of apparatus remain unchanged.

(16) Report No.: 08/0020/4

(17) Special conditions for safe use:

17.1 Version of transmitter with surge arrester marked on plate „SC, SA“, does 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.

(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: 07.03.2013

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FTZÚ, s.p., Pikartská 1337/7, 716 07 Ostrava-Radvanice, Czech Republic,
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Physical Technical Testing Institute
Ostrava – Radvanice

(13)

Schedule

(14)

Supplement No. 4 to
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0020X

(19) List of Documentation:

<i>Document/Drawings:</i>	<i>Type of sheet:</i>	<i>Date:</i>	<i>Nr. of pages:</i>
APC2000-A610-02	1	11.2012	1
APC2000-A610-00	1C, 2C	11.2012	2
APC2000-A610-01	1B, 2B, 3C	11.2012	3
APC2000-C611-TA	1A, 2A, 3A, 4A, 5	11.2012	5
APC2000-S611-01	1A, 4B	11.2012	2
APC2000-S611-01	4C	10.2012	1
APC2000-B621-TA	1, 2	11.2012	2
APC2000-B611-01	1A, 2A	09.2011	2
APC2000-B612-01	6C	11.2012	1
APC2000-B627-01	2A	01.2012	1
APC2000-B628-01	1,2	10.2012	2
APC2000-A611-TA	1C, 2C, 3C, 4	11.2012	4
APR2000-A611-TA	1C, 2C, 3C, 4	11.2012	4
APR2000-A612-TA	1C, 2B, 3C, 4	11.2012	4
APR2000-A613-TA	1B, 2B, 3B, 4	11.2012	4
APC2000-A620-TA	1, 2, 3, 4	11.2012	4
ZA-033-05	1	01.2008	1
APC2000-B618-TA	1A, 2A, 3B	11.2012	3
APR2000-B619-TA	1A, 2A	11.2012	2
APR2000-B619-TA	3A	09.2012	1
APR2000-B620-TA	1A, 2A, 4	11.2012	3
APR2000-B620-TA	3A	08.2012	1
APR2000-B621-TA	1A, 2A, 3A	11.2012	3
APC2000-B619-TA	1, 2, 3,	11.2012	3
APC2000-B630-TA	1, 2, 3	11.2012	3
U2-AN.APC-2000ALW.Ex.01	-	11.2012	2
DTR.APC.APR.ALW.03	-	01.2013	62

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 07.03.2013

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**Supplement No. 5 to
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 08 ATEX 0020X

(4) Equipment or protective system:

**Pressure Transmitter type APC-2000ALW/XX, Differential Pressure Transmitters type
APR-2000ALW/XX, APR-2200ALW/XX, APR-2000GALW/XX and APR-2000YALW/XX**

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

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

(7) This supplement of certificate is valid for:

- application of new standards
- modification of apparatus marking
- modification of certified apparatus
- new model (variant)–extension of series **APR-2000ALW/LXX
APR-2200ALW/LXX**

(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 T5/T6 Ga/Gb



II 1/2G Ex ia IIB T5/T6 Ga/Gb

version with teflon-shielded cable



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: **30.01.2017**

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 27.01.2015

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Physical Technical Testing Institute
Ostrava – Radvanice

(13)

Schedule

(14)

Supplement No. 5 to
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0020X

(15) Description of Equipment or Protective System:

Added versions of transmitter with the revised main PCB MPC5-rev3, with the amended marking and input parameters.

Versions of transmitter with PCB MPC5-rev3 replace versions of transmitter with main PCB MPC5-rev1 except for versions marked on the plate „SC” , „SC, SA” and versions in accordance with EN 12405-1. These versions of transmitters have the marking and the parameter values as specified in the basic certificate and supplements to No. 1, 2, 3, 4.

Added a new type of rotary cover of main PCB MPC5-rev3.

Added new printed circuit board A / D MPC5-AD-rev5.

Introduced the housing side cover with the glued glass panel.

Added new types of pressure and differential pressure sensors.

Introduced minor other changes do not affect the intrinsic safety.

Other technical parameters and construction of apparatus remain unchanged.

Intrinsically safe input power supply parameters:

Linear power supply output characteristic:

$U_i = 30 \text{ V}$; $I_i = 0,1 \text{ A}$; $P_i = 0,75 \text{ W}$; $T_a \leq +40^\circ\text{C}$ - temperature class T6, $T_a \leq +80^\circ\text{C}$ - temperature class T5

Range of permissible ambient temperature: $T_a = -40^\circ\text{C}$ to $+40/80^\circ\text{C}$

Trapezoidal power supply output characteristic:

$U_i = 24 \text{ V}$; $I_i = 50 \text{ mA}$; $P_i = 0,7 \text{ W}$; temperature class T5

Range of permissible ambient temperature: $T_a = -40^\circ\text{C}$ to $+80^\circ\text{C}$

Rectangular power supply output characteristic:

$U_i = 24 \text{ V}$; $I_i = 25\text{mA}$, $P_i = 0,6 \text{ W}$; $T_a \leq +40^\circ\text{C}$ - temperature class T6, $T_a \leq +80^\circ\text{C}$ - temperature class T5

Range of permissible ambient temperature: $T_a = -40^\circ\text{C}$ to $+40/80^\circ\text{C}$

$U_i = 24 \text{ V}$; $I_i = 50\text{mA}$, $P_i = 1,2 \text{ W}$; temperature class T5

Range of permissible ambient temperature: $T_a = -40^\circ\text{C}$ to $+70^\circ\text{C}$

Intrinsically safe parameters:

$C_i = 2,5 \text{ nF}$; $L_i = 18 \text{ }\mu\text{H}$,

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 27.01.2015

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Physical Technical Testing Institute
Ostrava – Radvanice

(13)

Schedule

(14)

Supplement No. 5 to
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0020X

(16) Report No.: 08/0020/5

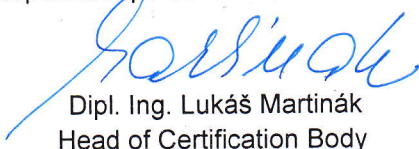
(17) Special conditions for safe use:

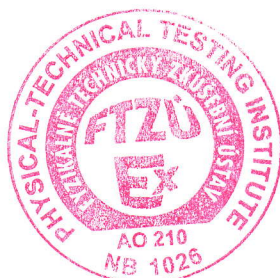
- 17.1 Versions of transmitter with surge arrester marked on plate „SC, SA“ or “SA”, do not meet the requirements of Section 10.3 of the standard EN 60079-11:2012 (500Vrms). This must be taken into account when installing the equipment.

(18) Essential Health and Safety Requirements:

Essential health and safety requirements 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: 27.01.2015

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Physical Technical Testing Institute
Ostrava – Radvanice

(13)

Schedule

(14)

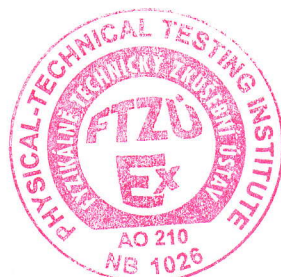
Supplement No. 5 to
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0020X

(19) List of Documentation:

<i>Document/Drawings:</i>	<i>Type of sheet:</i>	<i>Date:</i>	<i>Nr. of pages:</i>
APC2000-A610-00	1D, 2D, 3	03.2014	3
APC2000-A610-01	1C, 2C, 3D	03.2014	3
APC2000-C611-TA	1B-4B, 5A	03.2014	5
APC2000-S602-01	1	02.2013	1
APC2000-S611-01	1B	02.2014	1
APC2000-S605-01	1	02.2014	1
APC2000-B621-TA	1A, 2A	02.2014	2
APC2000-B602-01	1-9	02.2014	9
APC2000-B603-TA	1	03.2013	1
APC2000-B605-01	1, 2	02.2014	2
APC2000-A611-TA	1D-3D, 4A, 5	03.2014	5
APR2000-A611-TA	1D-3D, 4A, 5	03.2014	5
APR2000-A612-TA	1D, 2C, 3D, 4A, 5-7	03.2014	7
APR2000-A613-TA	1C-3C, 4A, 5	03.2014	5
APC2000-A620-TA	1A-4A, 5	03.2014	5
APR2000-A620-TA	1-5	03.2014	5
APR2000-A621-TA	1	02.2014	1
APC2000-A611-U	1	04.2014	1
ZA-033-04	1A	03.2014	1
ZA-033-05	1A	03.2014	1
APC2000-B618-TA	1B, 2B	03.2014	2
APC2000-B604-TA	1, 2	03.2014	2
APR2000-B619-TA	1B, 2B	03.2014	2
APR2000-B620-TA	1B-3B, 4A, 5	03.2014	5
APR2000-B621-TA	1B, 2B	03.2014	2
APC2000-B619-TA	1A-3A	03.2014	3
APC2000-B600-TA	1-3	03.2014	3
APR2000-B627-TA	1, 2	03.2014	2
APC2000-B606-01	1	03.2014	1
ZA-065-TA	1	06.2013	1
ZA-068-TA	1A	06.2013	1
GR40-002-TA	1A	02.2014	1
GR40-003-TA	1E, 2E	02.2014	2
AN:APC2000ALW.Ex.02	1-17	04.2014	17

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 27.01.2015

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(1) **Supplementary EU - Type Examination Certificate No.6**

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

(3) EU - Type Examination Certificate number:

FTZÚ 08 ATEX 0020X

(4) Product: **Pressure Transmitter type APC-2000ALW/XX, Differential Pressure Transmitters type APR-2000ALW/XX, APR-2200ALW/XX, APR-2000GALW/XX, APR-2000ALW/LXX and APR-2200ALW/LXX, Level Probe type APR-2000YALW, Level Transmitter type APC-2000ALW/LXX, Density Transmitter type APR-2200ALW/D**

(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 08 ATEX 0020X 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 Ga/Gb



II 1/2G Ex ia IIB T4/T5 Ga/Gb

I M1 Ex ia I Ma

II 1D Ex ia IIIC T105°C Da

version with PTFE-shielded cable

version with enclosure ss316

(12) This certificate is valid till: **31.01.2022**

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 30.01.2017

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

(13)

Schedule

(14) **Supplementary EU - Type Examination Certificate No. 6
to FTZÚ 08 ATEX 0020X**

(15) Description of the variation to the Product:

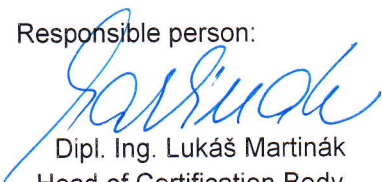
The subject of this supplementary certificate is:

- Modification of certified apparatus;
- Modification of apparatus marking;
- Adding new model (variant) – APR-2200ALW/D – Density Transmitter;
- Evaluation according to the newest standards;
- Prolongation of certificate validity.

This supplementary certificate accepts these changes of the Product:

- Changes in numbering of documentation.
- Introduced new type of apparatus – APR-2200ALW/D – Density Transmitter based on Differential Pressure Transmitters APR-2200ALW.
- Added new version of main PCB MPC5-rev1.2. Removed PCB MPC5-rev1 (model SC and SC SA) except for pressure transmitter with MID implementation.
- Added new version of connection MPC5-FH-Exi-Exd-rev1.
- Added new terminal block on connection PCB MPC5-FHI rev1-Ex with identical parameters.
- Added new version of PCB MPC5-AD-rev5.1 with minor changes.
- Measuring heads are compounded by casting compound of new type.
- Added the ability to use sprayed layer of PTFE Kontaflon 85 or other.
- Added the ability to use layer of PTFE thickness max. 0.15mm covering the wetted surfaces of diaphragm seals.
- New version of marking label, united for ATEX and IECEx.
- There are minor change in used electrical components and mechanical parts.
- Galvanically separated part of apparatus placed into measuring head is electrically connected with mass of enclosure.
- Introduced version of transmitter allowed for hazardous explosive gas atmospheres with minimum ambient temperature $T_a \leq -50^\circ\text{C}$.
- Temperature class of apparatus with main PCB MPC5-rev1.2 is changed to T4/T5.

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 30.01.2017

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Physical-Technical Testing Institute
Ostrava - Radvanice

(13)

Schedule

(14)

**Supplementary EU - Type Examination Certificate No. 6
to FTZÚ 08 ATEX 0020X**

Intrinsically safe input power supply parameters:

Linear power supply output characteristic:

$U_i = 30 \text{ V}$; $I_i = 0,1 \text{ A}$; $P_i = 0,75 \text{ W}$; 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

$U_i = 24 \text{ V}$; $I_i = 50 \text{ mA}$, $P_i = 1,2 \text{ W}$; temperature class T4

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

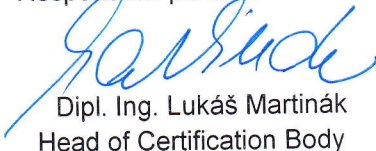
(16) Report Number.: 08/0020/6

(17) Specific Conditions of Use:

Additional to those listed previously.

1. 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.
2. Under certain extreme circumstances in dust explosive atmospheres, the device with painting of aluminum enclosure and with plastic tables and with elements of diaphragm seals covered by PTFE 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.
3. If the diaphragm seal contains titan parts, it must be protected against mechanical drops.
4. Galvanically separated part of apparatus placed into measuring head is electrically connected with mass of enclosure. It should be taken into account when installing the apparatus with remote measuring head on cable.

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 30.01.2017

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Physical-Technical Testing Institute
Ostrava - Radvanice

(13) **Schedule**

(14) **Supplementary EU - Type Examination Certificate No. 6
to FTZÚ 08 ATEX 0020X**

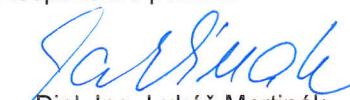
(18) Essential Health and Safety Requirements:

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:
APC2000-A610-02	1, 2	11.2016	2
APC2000-A610-00	1E, 2E	11.2016	2
APC2000-A610-01	1D,2D,3E	11.2016	3
(CER.Exi)APC2000-C611-TA	1, 2, 3	11.2016	3
APC2000-S646-01	1	11.2016	1
APC2000-S639-01	1	01.2016	1
APC2000-S605-01	1A	11.2016	1
APC2000-B646-TA	1, 2	11.2016	2
APC2000-B639-TA	1-8	11.2016	8
APC2000-B603-TA	1A	11.2016	1
APC2000-B606-01	1	03.2014	1
APC2000-B635-01	1, 2	06.2015	2
(CER.Exi)APC2000-A622-TA	1-6	11.2016	6
(CER.Exi)APC2000-A623-TA	1-4	11.2016	4
APC2000-A612-TA	1A	11.2016	1
APR2000-A614-TA	1A	11.2016	1
APR2000-A621-TA	1A	11.2016	1
APC2000-A611-U	1A	11.2016	1
(CER.XX)APC2000-B643-TA	1, 2	11.2016	2
APC2000-B618-TA	1C, 2C	11.2016	2
APR2000-B627-TA	1A, 2A	11.2016	2
ZA-083-TA	1	11.2016	1
U3.AN.APC-2000ALW.Ex.01	1-4	11.2016	4
DTR.APC.APR.ALW.03	E	11.2016	68

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 30.01.2017

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(1) **Supplementary EU - Type Examination Certificate No.7**

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

(3) EU - Type Examination Certificate number:

FTZÚ 08 ATEX 0020X

(4) Product: **Pressure Transmitter type APC-2000ALW/XX; Differential Pressure Transmitters type APR-2000ALW/XX, APR-2200ALW/XX, APR-2000GALW/XX, APR-2000ALW/LXX and APR-2200ALW/LXX; Level Probe type APR-2000YALW; Level Transmitter type APC-2000ALW/LXX; Density Transmitter type APR-2200ALW/D**

(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 08 ATEX 0020X 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

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**
II 1/2G Ex ia IIB T4/T5 Ga/Gb
I M1 Ex ia I Ma
II 1D Ex ia IIIC T105°C Da

version with PTFE-shielded cable
version with enclosure ss316

(12) This certificate is valid till: **31.07.2022**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 31.01.2022

Page: 1/2

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Physical-Technical Testing Institute
Ostrava - Radvanice

(13) **Schedule**

(14) **Supplementary EU - Type Examination Certificate No. 7
to FTZÚ 08 ATEX 0020X**

(15) Description of the variation to the Product:

The subject of this supplementary certificate is:

- Extension of certificate validity.

Technical parameters and construction of the products mentioned above in clause (4) remain unchanged.

The validity of certificate was extended for next six months until 31.07.2022.

(16) Report Number: 08/0020/7

(17) Specific Conditions of Use:

None additional to those listed previously.

(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.

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 31.01.2022

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