



EC-Type Examination Certificate

- (1) **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 14 ATEX 0174X

- (4) Equipment or protective system: **Temperature sensor type CT AL...;
and Temperature transmitter type APT AL...**
- (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°:

14/0174 dated 19.11.2015

- (9) Compliance with Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2012; EN 60079-1:2007; EN 60079-31:2009; EN 60079-26:2007
- (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:

Ex II 1/2G Ex d IIB+H₂ T Ga/Gb or II 2G Ex d IIB+H₂ T** Gb - see (15)**

Ex II 1/2D Ex tb IIIC T* Da/Db or II 2D Ex tb IIIC T* Db - see (15)

This EC-Type Examination Certificate is valid till: **30.11.2020**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 20.11.2015

Page: 1/4

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) **EC-Type Examination Certificate N° FTZÚ 14 ATEX 0174X**

(15) Description of Equipment or Protective System:

Temperature sensor CT AL... and temperature transmitter type APT AL... consist of measuring insert, which on the one end contains sensing resistors or thermocouples. The second end of the measuring insert is provided with terminal block or transmitter protected by connection head with Ex- protection Ex d for gas and Ex- protection Ex tb for dust. Aluminium alloy head consists of cover with thread M72x1.5 and body with thread hole M20x1.5 or 1/2 NPT for Ex cable gland.

Opening d2 in the connection head body along with bush on the measuring insert creates flameproof joint.

Marking of the equipment:

II 2G Ex d IIB+H₂ T** Gb and II 2D Ex tb IIIC T* Db - location of complete equipment in zone 1 or zone 21.

II 1/2G Ex d IIB+H₂ T** Ga/Gb and II 1/2D Ex tb IIIC T* Da/Db – measuring stem with screwed to the opening D2 of housing thermowell, with proper wall thickness (zone 0 or 20):

- a) minimum 1.5 mm, made of corrosion resistant steel or
- b) minimum 1 mm and fixed in protective thermowell (wall thickness minimum 1 mm) made of corrosion resistant steel.

Basic technical parameters:

The maximum measuring current of thermometric resistors:

- a) thin-film: Pt100 - 1 mA; Pt500 - 0.7 mA; Pt1000 - 0.3 mA
- b) wire – wound resistor: 5 mA

The current load of thermometric resistors Pt100, Pt500, Pt1000 or thermocouples - max. 10 mA

Maximum rated transmitter parameters:

- Rated voltage Un: 7.5 V - 36 V DC
- Rated current signal with HART: 4 - 20 mA
- Degree of IP protection: IP 66

(16) Report No.: FTZÚ 14/0174

dated 19.11.2015

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 20.11.2015

Page: 2/4

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.

FTZÚ, s.p., Pikartská 1337/7, 716 07 Ostrava-Radvanice, Czech Republic,
tel +420 595 223 111, fax +420 596 232 672, ftzu@ftzu.cz, www.ftzu.cz



Physical Technical Testing Institute
Ostrava – Radvanice

(13)

Schedule

(14) **EC-Type Examination Certificate N° FTZÚ 14 ATEX 0174X**

(17) Special conditions for safe use:

17.1 Temperature class (T** for gas) or the maximum surface temperature (T* for dust) depends mainly on the process temperature Tp (temperature-controlled medium) and methods of installation on site. Accordingly, the temperature Tp of the hottest place on the housing surface (which is the thermowell of the sensor), which has the contact with the explosive atmosphere in conditions of installation on site, has to be determined and one should follow the current instruction.

Temperature class T**	Maximum surface temperature T* for dust	Maximum temperature of medium
T6	85 °C	80°C
T5	100°C	95°C
T4	135°C	130°C
T3	200°C	195°C
T2	300°C	290°C
T1	450°C	440°C

17.2 Verified values of the maximum gaps and minimum constructional length of flameproof joints of this enclosure differ from relevant minimum and maximum values mentioned in standard. To obtain information about joints dimension it is necessary to contact the manufacturer.

17.3 Ambient temperature for housing and cable gland: Tamb: -50°C to +60°C.

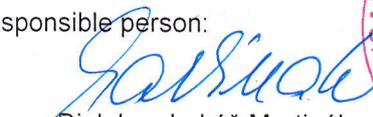
17.4 Cable glands shall be used according to manufacturer's specification mentioned in user manual.

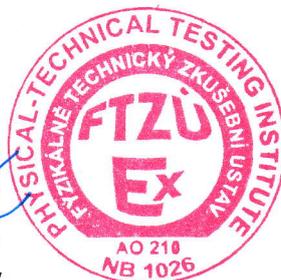
17.5 It must be kept IP degrees of sensor connection to the vessel wall minimum IP 67.

(18) Essential Health and Safety Requirements:

They are included in standards, which are mentioned in clause (9) of this certificate. The product was approved in accordance with above mentioned standards.

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 20.11.2015

Page: 3/4

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.

FTZÚ, s.p., Pikartská 1337/7, 716 07 Ostrava-Radvanice, Czech Republic,
tel +420 595 223 111, fax +420 596 232 672, ftzu@ftzu.cz, www.ftzu.cz



Physical Technical Testing Institute
Ostrava – Radvanice

(13)

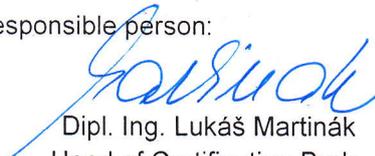
Schedule

(14) **EC-Type Examination Certificate N° FTZÚ 14 ATEX 0174X**

(19) List of Documentation:

- User manual:	DTR.CT.APT.AL		07/2014
- Technical description:	CT AL-003		04/2015
- List of documents:	CT AL-001-00		07/2014
- Drawings No.:			
CTTBZN-008	02/2014	CTO-B190-Z	09/2013
CTTBZN-009	04/2014	CTO-C215-TA	09/2013
CT AL-002	03/2014	CTO-C218-01	10/2013
CTO-B177-TA	04/2015	CTA-C150-01	04/2015
CTO-B187-Z	04/2015	CTA-C151-01	04/2015
X-902-00	07/2014	CTA-C152-TA	09/2013
CT AL-A001-TA	04/2015	CTA-C156-01	10/2013
APT AL-A002-TA	04/2015	CTA-C157-01	10/2013
CT AL-A004-TA	06/2014	CTO-B189-TA	04/2015
APT AL-A001-TA	04/2015	CTW2-B002-TA	07/2013
CT AL-A002-TA	04/2015	CTW2-B003-TA	04/2015
APT AL-A004-TA	06/2014	CTO-B179-TA	07/2013
LI24ALW-C022-01	07/2014	CTO-B178-TA	06/2014
CTA-C190-01	07/2014	CTA-C171-TA	06/2014
CTO-B191-TA	05/2014	CTO-C214-01	09/2013
CTO-B192-TA	06/2014	CTO-B188-TA	08/2013
CTO-B193-TA	05/2014	CTW2-B001-TA	02/2013
CTO-B194-TA	05/2014	CTO-B197-Z	02/2014
CTO-B195-TA	05/2014	CTO-B198-Z	03/2014
CTO-B196-TA	05/2014		

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 20.11.2015

Page: 4/4

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.

FTZÚ, s.p., Pikartská 1337/7, 716 07 Ostrava-Radvanice, Czech Republic,
tel +420 595 223 111, fax +420 596 232 672, ftzu@ftzu.cz, www.ftzu.cz



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

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

(3) EU - Type Examination Certificate number:

FTZÚ 14 ATEX 0174X

(4) Product: **Temperature sensor type CT AL... and Temperature transmitter type APT AL...**

(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 14 ATEX 0174X 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:

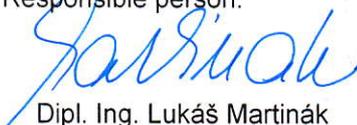
EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-26:2015, EN 60079-31:2014

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

 **II 1/2G Ex db IIB+H₂ T** Ga/Gb or II 2G Ex db IIB+H₂ T** Gb - see (15)**
II 1/2D Ex tb IIIC T* Da/Db or II 2D Ex tb IIIC T* Db - see (15)

(12) This certificate is valid till: **30.11.2025**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 30.11.2020

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. 1
to FTZÚ 14 ATEX 0174X**

(15) Description of the variation to the Product:

The subjects of this supplementary certificate are:

- Evaluation according to the newest standards.
- Prolongation of certificate validity.

Marking of the equipment:

⊕ II 2G Ex db IIB+H₂ T** Gb and II 2D Ex tb IIIC T* Db - location of complete equipment in zone 1 or 21.

⊕ II 1/2G Ex db IIB+H₂ T** Ga/Gb and II 1/2D Ex tb IIIC T* Da/Db – measuring stem with thermowell is screwed to the opening D2 of housing and fixed in protective thermowell (zone 0 or 20):

- a) from stainless steel with proper wall thickness 1,5 mm, or
- b) from stainless steel with proper wall thickness 1 mm mounted in the additional protective thermowell with proper wall thickness 1mm.

The equipment is verified according to the newest standards EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-26:2015 and EN 60079-31:2014.

Design of flameproof enclosure and electrical parameters remain unchanged.

(16) Report Number: 14/0174/1

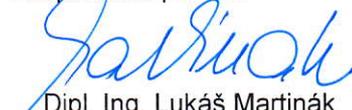
(17) Specific Conditions of Use:

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: 30.11.2020

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
Ostrava - Radvanice

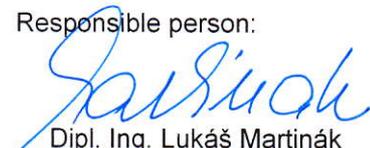
(13) Schedule

(14) **Supplementary EU - Type Examination Certificate No. 1
to FTZÚ 14 ATEX 0174X**

(19) Drawings and Documents:

Number	Revision	Sheets	Date	Description
CT AL-003	--	2	09/2020	Technical description
CT APT-001-02	--	1	09/2020	Description of changes No. 1
DTR.CT.APT.AL	B	27	09/2020	User manual
CT AL-001-00	--	2	09/2020	List of documentation
CTTBZN-008	--	1	09/2020	Drawing label APT-AL...
CTTBZN-009	--	1	09/2020	Drawing label CTAL...
CTO-B197-Z	--	1	09/2020	List of used Ex - cable glands
CT AL-A001-TA	--	1	09/2020	Drawing CT AL-GB3...
CT AL-A002-TA	--	1	09/2020	Drawing CT AL-GN3...
CT AL-A004-TA	--	1	09/2020	Drawing CT AL...
APT AL-A001-TA	--	1	09/2020	Drawing APT AL-GB3
APT AL-A002-TA	--	1	09/2020	Drawing APT ALGN3
APT AL-A004-TA	--	1	09/2020	Drawing APT AL...
CTTBZN-010	--	1	11/2020	Drawing of warning label

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 30.11.2020

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.