IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx FTZU 13.0028X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2014-06-24)
Date of Issue:	2017-07-13		
Applicant:	**APLISENS S.A.** ul. Morelowa 7, 03-192 Warszawa **Poland**		
Equipment:	**Smart Temperature Transmitter type LI-24ALW**		
Optional accessory:			
Type of Protection:	**Intrinsic safety**		
Marking:	Ex ia IIC T4/T5/T6 Ga/Gb — only version LI-24ALW/C Ex ia [ia Ga] IIC T4/T5/T6 Gb — only version LI-24ALW Ex ia I Ma — version with enclosure ss316 Ex ia IIIC T105ºC Da		

Approved for issue on behalf of the IECEx Certification Body: **Dipl. Ing. Lukáš Martinák**

Position: **Head of the Certification Body**

Signature: (for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

Fyzikalne technicky zkusebni ustav
(Physical -Technical Testing Institute)
Pikartska 7, 71607 Ostrava - Radvanice
Czech Republic

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Certificate No.: **IECEx FTZU 13.0028X**

Date of issue: 2017-07-13

Issue No: 1

Manufacturer: **APLISENS S.A.**
ul. Morelowa 7, 03-192 Warszawa
Poland

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

CZ/FTZU/ExTR13.0028/00 CZ/FTZU/ExTR13.0028/01

Quality Assessment Reports:

PL/KDB/QAR12.0001/00 PL/KDB/QAR12.0001/01 PL/KDB/QAR12.0001/02

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The Temperature Transmitter type LI-24ALW 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 and III applications but only of stainless steel for mine (group I) application. One of the housing cover contains a 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 EPL Ga/Gb equipment shell be installed into the partition between the hazardous areas of EPL Ga and Gb.
Temperature classes T4, T5 or T6 depend on the input power and maximum ambient temperature – see bellow.

Input parameters:

a) supply from a power source with linear output characteristic:
Ui = 30 V; Ii = 0,1 A; Ci = 2,5 nF; Li = 18 µH; Pi = 0,75 W; Ta ≤ 80°C & T4; Ta ≤ 70°C & T5;
Pi = 0,5 W; Ta ≤ 40°C & T6;
Tm > Ta & T*, T** according to IO.LI24.ALW.01

b) supply from a power source with trapezoidal output characteristic:
Ui = 24 V; UQ = 48 V; Ii = 50 mA; Ci = 2,5 nF; Li = 18 µH; Pi = 0,6 W; Ta ≤ 80°C & T5;
Pi = 0,5 W; Ta ≤ 40°C & T6;
Tm > Ta & T*, T** according to IO.LI24.ALW.01

c) supply from a power source with rectangular output characteristic:
Ui = 24 V; Ii = 25 mA; Pi = 0,6 W; Ci = 2,5 nF; Li = 18 µH; Ta ≤ 80°C & T5,
Tm > Ta & T*, T** according to IO.LI24.ALW.01

Tm - medium temperature
T* - maximum surface temperature
T**- temperature class

Output parameters:
Uo = 6.6 V; Io = 9,8 mA; Po = 16,2 mW; Lo = 400 mH
Co = 1000 µF for IIA; Co = 480 µF for IIB; Co = 3,5 µF for IIC
Degree of protection: IP 65, IP 66/67

Minimum of ambient temperature:
Ta = - 40°C to +80°C
Ta = - 50°C to +80°C version only for explosive gas atmospheres (Group II)

SPECIFIC CONDITIONS OF USE: YES as shown below:
The operating instructions must be taken into account during installation.

Versions of transmitter with surge arrester marked on plate “SA”, do not meet the requirements of Section 10.3 of the standard IEC 60079-11:2011 (500Vrms). This must be taken into account when installing the equipment.

Under certain extreme circumstances in dust explosive atmospheres, the device with painting of aluminum enclosure and with plastic plate 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.

For the medium temperature Tm > Ta temperature class T** and the maximum surface temperature T* should be set according to the current manual.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue of certificate accepts these changes of the Product:
Changes in numbering of documentation.
Current models are renamed to LI-24ALW/C – Smart Temperature Transmitter with integral sensor.
Introduced new type of product – Smart Temperature Transmitter type LI-24ALW identical with LI-24ALW/C, designed to be connected with external sensor.
Added new version of main PCB MPC5-rev.2.1.
Introduced version of transmitter allowed for hazardous explosive gas atmospheres with minimum ambient temperature Ta = -50°C.
There are minor change in used electrical components and mechanical parts.