



# 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](http://www.iecex.com)

Certificate No.: **IECEX FTZU 14.0026X** Page 1 of 4 [Certificate history:](#)  
Issue 0 (2015-03-09)

Status: **Current** Issue No: 1

Date of Issue: 2017-01-30

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

Equipment: **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**

Optional accessory:

Type of Protection: **Intrinsic safety**

Marking: Ex ia IIC T4/T5 Ga/Gb  
Ex ia IIB T4/T5 Ga/Gb (version with PTFE-shielded cable)  
Ex ia I Ma (version with enclosure ss316) Ex ia III C T105°C Da

Approved for issue on behalf of the IECEx  
Certification Body:

**Dipl.Ing. Lukáš Martinák**

Position:

**Head of 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](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**Fyzikálne technický zkušební ústav  
(Physical -Technical Testing Institute)  
Pikartská 7, 71607 Ostrava - Radvanice  
Czech Republic**





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Manufacturer: **APLISENS S.A.**  
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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/ExTR14.0026/00](#)

[CZ/FTZU/ExTR14.0026/01](#)

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:

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 are designed to convert process pressure measurements into a 4 to 20 mA current signal. The apparatus comprises a sensor several printed circuit boards and liquid crystal display all housed in a light alloy enclosure or stainless steel enclosure. One of the housing cover contains a window. In version with a sensor placed on a cable, in the transmitter's type designation before a symbol of process connection is placed letter L e.g. APC-2000ALW/LXX. External connections are made via an integral terminal block.

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 group II

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

## SPECIFIC CONDITIONS OF USE: YES as shown below:

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.

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

If the diaphragm seal contains titan parts, it must be protected against mechanical drops.

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.



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## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

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 PCB 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.

There is no influence to current level of intrinsic safety.

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