



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 13.0004X** Page 1 of 5 Certificate history:
Status: **Current** Issue No: 2 Issue 1 (2016-03-09)
Date of Issue: 2018-04-04 Issue 0 (2013-06-12)
Applicant: **APLISENS S.A.**
Morelowa 7
03-192 Warszawa
Poland
Equipment: **Pressure transmitter PC-28, PCE-28, PC-28Ex Safety, PCE-28Ex Safety, Differential pressure transmitter PR-28, PRE-28, PR-28Ex Safety, PRE-28Ex Safety Hydrostatic level probe PC-28P, PCE-28P**
Optional accessory:
Type of Protection: **Intrinsic safety**
Marking: Ex ia I Ma
Ex ia IIC T4/T5/T6 Ga/Gb
Ex ia III C T110°C Da
Ex ia IIC T4 Ga/Gb – (for transmitters with connection ALW, ALM)

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 or use of this QR Code.



Certificate issued by:

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





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Manufacturer: **APLISENS S.A.**
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/ExTR13.0005/00](#)

[CZ/FTZU/ExTR13.0005/01](#)

[CZ/FTZU/ExTR13.0005/02](#)

Quality Assessment Reports:

[PL/KDB/QAR12.0001/02](#)

[PL/KDB/QAR12.0001/03](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The device is used as a pressure transmitter (PC*-28*), or differential pressure transmitter (PR*-28*), or hydrostatic level probe (PC*-28P). The device converts non electrical process variable, which is pressure, into electrical 4...20mA output signal. It consists of measurement head including pressure sensor (various types), fully encapsulated main PCB (additional small auxiliary PCBs might exist depending on version), steel cylindrical enclosure, cable connector (various types: with cable gland or fixed external cable).

SPECIFIC CONDITIONS OF USE: YES as shown below:

Conditions for safe use:

1. Ambient temperature range – see Instruction manual and marking label.
2. Process temperature (medium) at the diaphragm of the transmitter must be in range of ambient temperature.
3. In case of use the transmitter in dust atmosphere, supplying voltage could occur on transmitter enclosure. It should be taken into consideration during transmitter installation.
4. In case of use titan parts in diaphragm seal, during installation and operation of the device the diaphragm seal should be protected against mechanical impact.
5. Version of the transmitter with surge arrester, marked on the plate "Version SA", does not meet the requirements of Section 6.3.13 of IEC 60079-11:2011 (test of isolation 500VAC). This must be taken into account during the installation of transmitters.
6. Transmitters with display (with electrical connections ALW, ALM) and with diaphragm seals covered by PTFE, for Group III, should be installed in a place and in a way that prevents electrostatic charging



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Equipment (continued):

Parameters:

Ambient temperature range:

For Group I:

-40 to +80°C for $P_i=1.2W$

For Group II:

-40 to +45°C for $P_i=0.7W$, temp. class T6

-40 to +80°C for $P_i=0.7W$, temp. class T5

-40 to +75°C for $P_i=1.2W$, temp. class T5

-40 to +80°C for $P_i=1.2W$, temp. class T4

For Group III:

-40 to +80°C for $P_i=1.2W$ and $T_{surface}=110°C$

Intrinsically safe parameters:

Power supply with linear output characteristic:

$U_i=28VDC$, $I_i=0.1A$, $P_i=0.7W$, $C_i=25nF+cable\ capacitance^*$, $L_i=0,4mH+cable\ inductivity^*$

Power supply with trapezoidal or rectangular output characteristic:

$U_i=24VDC$, $I_i=0.1A$, $P_i=1.2W$, $C_i=25nF+cable\ capacitance^*$, $L_i=0,4mH+cable\ inductivity^*$

* - concerns versions with PK(M) and SG(M) connectors; cable parameters $C=200pF/m$, $L=1\mu H/m$

See instructions for use:

DTR.PC.PR-28 Safety for PC-28 Safety, PC-28Ex Safety, PR-28 Safety, PR-28Ex Safety

DTR.PC.PR-28.02 for PC-28, PR-28, PC-28P

DTR.PCE.PRE-28 Safety for PCE-28 Safety, PCE-28Ex Safety, PRE-28 Safety, PRE-28Ex Safety

DTR.PCE.PRE-28.02 for PCE-28, PRE-28, PCE-28P



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Added versions of pressure transmitters and differential pressure transmitters with electrical connections type ALM. Transmitters with electrical connection ALM are equipped with LCD display mounted on the plate AM1-rev2 enclosed in light alloy housing with PM12 or PD connector. Transmitters with electrical connection ALM equipped with PM12 connector are allowed only to hazardous gas explosive atmospheres (Group II). Transmitters with ALM connection with connector PD are allowed for gas and dust hazardous explosive atmospheres (Group II and Group III).

Products PC-28 or PCE-28 with diaphragm seals can be equipped with heat shrinkable sleeve.

Added the ability to use layer of PTFE thickness max. 0,15 mm covering the surfaces of pressure separators.

Introduced other minor changes do not affect the intrinsic safety.

Other technical parameters, intrinsically safe parameters and construction of apparatus remain unchanged.