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 KDB 23.0003**	Page 1 of 5	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2023-07-27		
Applicant:	**APLISENS S.A.** ul. Morelowa 7, 03-192 Warszawa, POLAND **Poland**		
Equipment:	**Intrinsically safe power supply - separator type ZS-30/1Ex**		
Optional accessory:			
Type of Protection:	**Intrinsic safety "i"**		
Marking:	[Ex ia Ma] I [Ex ia Ga] IIC [Ex ia Da] IIIC		

Approved for issue on behalf of the IECEx Certification Body: **Piotr Madej**

Position: **Head of ExCB**

Signature:
(for printed version)

Date:
(for printed version)

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:

Główny Instytut Górnictwa, Kopalnia Doświadczalna "BARBARA"
(Central Mining Institute Experimental Mine "Barbara")
ul. Podleska 72
43-190 Mikołów
Poland

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Certificate No.: **IECEx KDB 23.0003**

Date of issue: 2023-07-27

Issue No: 0

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

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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

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 Report:

PL/KDB/ExTR23.0003/00

Quality Assessment Report:

PL/KDB/QAR12.0001/06

IECEx Certificate of Conformity

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

Intrinsically safe power supply - separator type ZS-30/1Ex is an associated apparatus designed for cooperation with two-wire transmitters generating an analogue signal 4…20mA, which are installed in the hazardous areas.

The power supply transforms the signal 4…20mA into one of the standard analog signals: 4…20mA, 0…20mA; 0…5mA; 0…10V, 0…5V, 1…5V, 2…10V. The supply voltage of intrinsically safe input circuit can be from 7.5V DC up to 24V DC. The input, output and power circuits are galvanically isolated. The device's power supply is located on the non-intrinsically safe part of separator. The power supply uses digital calibration of the output signal parameters due to the use of a 16-bit microcontroller and a 16-bit digital-analogue converter.

Intrinsically safe power supplies - separators type ZS-30/1Ex are intended for installation:

- in cabinets or closed enclosures, in dry environments, outside of an explosion hazardous zones,

- inside of a flameproof enclosure or inside of a pressurized enclosure in the case of an explosion hazardous zones.

Technical parameters:

Ambient temperature: +5˚C ÷ +55˚C

-25˚C ÷ +55˚C (special version)

Degree of protection: IP 20

Power supply – terminals: L/+, N/-:

Voltage Um: 20…253V AC/DC

Intrinsically safe parameters:

Intrinsically safe input circuits (depending on configuration)

– terminals: P+, P-

1.

Uo=25,2V Li~0

Io=88mA Ci=49,2nF

Po=0,555W

Group I

Lo=0,2mH

Co=1,1µF

Group IIC

Lo=0,2mH

Co=0,107µF

SPECIFIC CONDITIONS OF USE: NO

IECEx Certificate of Conformity

Equipment (continued):

2.

Uo=23,1V Li~0

Io=88mA Ci=49,2nF

Po=0,507W

Group I

Lo=0,2mH

Co=1,4µF

Group IIC

Lo=0,2mH

Co=0,130µF

3.

Uo=21,0V Li~0

Io=92mA Ci=49,2nF

Po=0,482W

Group I

Lo=0,2mH

Co=1,7µF

Group IIC

Lo=0,2mH

Co=0,15µF

4.

Uo=18,38V Li~0

Io=86mA Ci=49,2nF

Po=0,395W

Group I

Lo=0,2mH

Co=2,7µF

Group IIC

Lo=0,2mH

Co=0,210µF

IECEx Certificate of Conformity

5.

Uo=15,75V Li~0

Io=90mA Ci=49,2nF

Po=0,353W

Group I

Lo=0,2mH

Co=5,8µF

Group IIC

Lo=0,2mH

Co=0,420µF

6.

Uo=7,88V Li~0

Io=89mA Ci=49,2nF

Po=0,176W

Group I

Lo=0,2mH

Co=23,0µF

Group IIC

Lo=0,2mH

Co=2,300µF