



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx DNV 08.0008X issue No.:1

Certificate history:
Issue No. 1 (2010-3-29)
Issue No. 0 (2009-5-7)

Status: **Current**

Date of Issue: **2010-03-29** Page 1 of 4

Applicant: **Physical Acoustics Corporation**
195 Clarkesville Road
Princeton Junction
New Jersey 08550-503
United States of America

Electrical Apparatus: **ISPKxxI & ISPKxxIUC sensors with 1281 Barrier/preamp interface**
Optional accessory:

Type of Protection: **Ex ia IIC T4 / [Ex ia] IIC**

Marking: Barrier Interface :
1281-5015
Um=250V
Uo= 5,88V
Io= 0,297A
Po= 0,44W
Lo= 0,35 mH
Co = 43 uF

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

Marianne Spæren

Position:

Certification Manager

*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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

DNV
Det Norske Veritas (DNV) Certification AS
Veritasveien 1
1322 Hovik
Norway





IECEX Certificate of Conformity

Certificate No.: IECEx DNV 08.0008X

Date of Issue: 2010-03-29

Issue No.: 1

Page 2 of 4

Manufacturer: **Physical Acoustics Corporation**
195 Clarkesville Road
Princeton Junction
New Jersey 08550-503
United States of America

Manufacturing location(s):

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 electrical apparatus 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 : 2004 Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
Edition: 4.0

IEC 60079-11 : 2006 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition: 5

*This Certificate **does not** indicate compliance with electrical 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:

[NO/DNV/ExTR09.0003/01](#)

[NO/DNV/ExTR09.0003/02](#)

Quality Assessment Report:

[GB/SIR/QAR08.0008/00](#)



IECEx Certificate of Conformity

Certificate No.: IECEx DNV 08.0008X

Date of Issue: 2010-03-29

Issue No.: 1

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description of Equipment

The equipment consists of a series of ISPKxxI & ISPKxxIUC sensors with 1281 barrier/preamp interface. The barrier interface supplies the sensors with an intrinsically safe signal. The Barrier/Preamp Interface also detects AST signal from the standard AE system and send it to the preamplifier/sensors where the sensors will generate tone bursts to send back to the AE system thru the barrier. The pre-amplifier can be integrated into the sensor or as a separate unit.

See annex for more details

CONDITIONS OF CERTIFICATION: YES as shown below:

The instruction indicates all the necessary information to ensure the installation minimizes the risk from electrostatic discharge.



IECEX Certificate of Conformity

Certificate No.: IECEx DNV 08.0008X

Date of Issue: **2010-03-29**

Issue No.: 1

Page 4 of 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Included high temperature sensors with separate pre-amplifier