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 IMQ 18.0009X

Issue No: 0

Certificate history:
Issue No. 0 (2018-10-24)

Status: **Current**

Date of Issue: **2018-10-24**

Applicant: **PROSENSE TEKNOLOJI SAN. LTD. STI**
YUKARI MAH. HARMAN SOK. 42
TR- KARTAL ISTANBUL
Turkey

Equipment: **Gas detector**

Optional accessory: *P**** and P***PE Series*

Type of Protection: **Ex db**

Marking:
Ex db IIC T4 Gb; Ex db IIC T5 Gb

Approved for issue on behalf of the IECEx Certification Body: Mr. Mauro CASARI

Position: IMQ ExCB 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.

Certificate issued by:

Istituto Italiano del Marchio di Qualità S.p.A
Via Quintiliano 43
20138 Milano
Italy

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Manufacturer: **PROSENSE TEKNOLOJI SAN. LTD. STI**
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Additional 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 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

*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:

IT/IMQ/ExTR18.0009/00

Quality Assessment Report:

GB/EXV/QAR18.0006/00

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

P** and P***PE Series** gas detectors are equipment designed to detect toxic compounds in industrial environments and classified areas.

They are composed by:

- a gas sensor, contained in a metallic flameproof enclosure and protected by a sinter metal element,
- a metallic flameproof junction box, containing terminals for electric connections and electronic circuits for amplification / conversion / transmission of signals.

The metallic flameproof junction box has up to three threaded openings for cable entry, and one threaded opening on bottom side where the gas sensor metallic flameproof enclosure is fastened.

Installation and maintenance of gas detectors shall be performed according to IEC 60079-14 and IEC 60079-17, and strictly in compliance with details listed in manufacturer's use and safety instructions.

P** and P***PE Series** gas detectors model coding system:

P – (XY) (W) (Z) (PE)

More details in Annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

P** and P***PE Series** gas detectors must be installed only with sensor head pointing downwards.

Cable glands and thread adapters used for entry into the enclosure, as well as blanking elements, shall be certified as Ex Components according to protection "d", and suitable for the ambient temperature range specified above.

Electrical components/devices installed inside the junction box must not exceed a total power consumption of 2,5 W in order to ensure compliance with the declared maximum temperature rise.

Sinter disc and sensor head cap is considered a mounting component and must be replaced as a single unit.

Annex:

PROSENSE-IECEx_IMQ 18.0009X-Annex-Issue 0.pdf

General description

P** and **P***PE Series** gas detectors are equipment designed to detect toxic compounds in industrial environments and classified areas.

They are composed by:

- a gas sensor, contained in a metallic flameproof enclosure and protected by a sinter metal element,
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Installation and maintenance of gas detectors shall be performed according to IEC 60079-14 and IEC 60079-17, and strictly in compliance with details listed in manufacturer's use and safety instructions.

Design options

P** and **P***PE Series** gas detectors model coding system:

P – (XY) (W) (Z) (PE)

(XY) Gas Type			
30. LPG	**42.** Etnol	**54.** Dioxane	**66.** Sulfur dioxide
31. Methane	**43.** Iso propanol	**55.** Ethane	**67.** Nitrick oxide
32. Petrol vapour	**44.** Carbon monoxide	**56.** Butyle alcohol	**68.** Nitrogen dioxide
33. n Butane	**45.** Acetone	**57.** Stylen	**69.** Chlorine
34. Propane	**46.** Methyl ethy keton	**58.** Propylene	**70.** Hydrocarbon
35. Hexane	**47.** Ethyl acetate	**59.** Xylene	**71.** Carbondioxide
36. Hydrogen	**48.** Ammonia	**60.** Acetylene	**72.** Freon Gas
37. Pentane	**49.** Ethylene	**61.** Benzene	**73.** JP8
38. Touen	**50.** Acetic acid	**62.** Ethylene oxide	**74.** Formaldehyde
39. Methanol	**51.** Butyl acetat	**63.** Vinyl acetat (VAM)	**75.** HCN
40. Heptane	**52.** Cyclo hexane	**64.** Hydrogen sulfide	**76.** Hydrogen peroxide
41. Octane	**53.** Cyclo pentane	**65.** Oxygen	**77.** Nonane

(W) Sensor Head
1. SH10
2. SH20
3. SH30

(Z) Sensor Type
1. Semiconductor
2. Catalytic
3. Infrared
4. Electrochemical
5. Pellistor

Final PE code applies only to gas detectors with SH10 sensor head.

IP code: 65 (IEC 60529)

Rated characteristics

Vi_n: 12 -24 V_{dc} ; P_{max}: 2,5 W

Ambient temperature: -20 °C ÷ +40 °C ; -20 °C ÷ +50 °C; -20 °C ÷ +70 °C

Schedule of limitations

P**** and P***PE Series gas detectors must be installed only with sensor head pointing downwards.

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Electrical components/devices installed inside the junction box must not exceed a total power consumption of 2,5 W in order to ensure compliance with the declared maximum temperature rise.

Sinter disc and sensor head cap is considered a mounting component and must be replaced as a single unit.

Markings

Ex db IIC T4 Gb ; Ex db IIC T5 Gb

Manufacturer’s instructions

Title:	Drawing No.:	Rev. Level:	Date:
Prosense P Series gas Detector Installation and User Manual	PRS-UM-P-EN	01	08.2018
Prosense PE Series gas Detector Installation and User Manual	PRS-UM-PE-EN	01	08.2018
Safety Instruction for hazardous area	PRS-SI-EN	01	08.2018