



[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System intended for use in potentially explosive atmospheres - Directive 2014/34/EU Annex III - MODULE B: EU-TYPE EXAMINATION

[3] EU-type Examination Certificate number: **IMQ 19 ATEX 045 X**

[4] PRODUCT: **Gas detector**
TYPE/SERIES: **P-**(2 or 3)* ; P-**1*PE; P-**1*PEK and P-**3*PES Series**

[5] MANUFACTURER: **Prosense Teknoloji San. Ltd. Sfi.**

[6] ADDRESS: **Cumhuriyet Mah, Mermer Sk. No:16 - TR-34876 KARTAL/Istanbul**

[7] This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents therein referred to.

[8] IMQ, notified body N° 0051, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in Report No.: **AT20-0056726-01**

[9] Compliance with Essential Health and Safety Requirements, except in respect of those listed at item 18 of the annex, has been assured by compliance with:

EN IEC 60079-0:2018; EN 60079-1:2014

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate

[11] This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:



II 2G Ex db IIC T4/T5 Gb

This document is composed of 5 pages including 1 annex

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B.U. PRODUCT CONFORMITY ASSESSMENT
CERTIFICATION SECTOR – MANAGER

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PRD N° 005 B

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[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 19 ATEX 045 X**

[15] **Description of product:**

P-(2 or 3)*; P-**1*PE; P-**1*PEK and P-**3*PES Series** gas detectors are equipment designed to detect toxic compounds in industrial environments and classified areas.

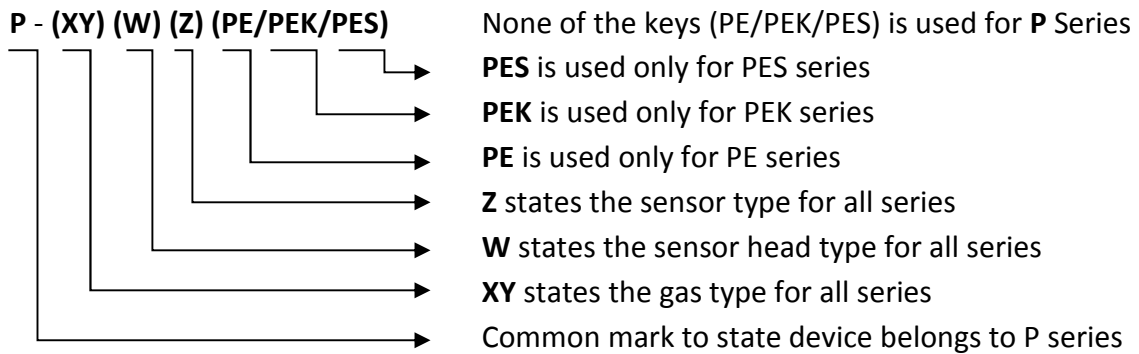
They are composed by:

- 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.

[15.1] **Models/Series Identification:**

P-(2 or 3)*; P-**1*PE; P-**1*PEK and P-**3*PES Series** gas detectors model coding system



P Series designed with SH20 or SH30 Sensor Head + Junction Box

P series naming schema is "**P - (XY) (W) (Z)**"

Key code: **P - ** (2 or 3)***

PE Series designed with SH10 Sensor Head + Junction Box

PE series naming schema is "**P - (XY) (W) (Z) PE**"

Key code: **P - ** 1 * PE**

PEK Series designed with SH10 Sensor Head + Junction Box + Accelerometer sensor

PEK series naming schema is "**P - (XY) (W) (Z) PEK**"

Key code: **P - ** 1 * PEK**

PES Series designed with SH30 Sensor Head + Junction Box + Accelerometer sensor

PES series naming schema is "**P - (XY) (W) (Z) PES**"

Key code: **P - ** 3 * PES**

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CODING SAMPLES

- P-3025:** LPG Gas Detector - SH20 Sensor Head - Pellistor Sensor
- P-3035:** LPG Gas Detector - SH30 SS Sensor Head - Pellistor Sensor
- P-3735:** Pentane Gas Detector - SH30 SS Sensor Head - Pellistor Sensor
- P-3733:** Pentane Gas Detector - SH30 SS Sensor Head - Infrared Sensor
- P-4824:** Ammonia Gas Detector - SH20 Sensor Head - Electrochemical Sensor
- P-4834:** Pentane Gas Detector - SH30 SS Sensor Head - Electrochemical Sensor
- P-3012 PE:** LPG Gas Detector - SH10 Sensor Head - Catalytic Sensor
- P-3412 PE:** Propane Gas Detector - SH10 Sensor Head - Catalytic Sensor
- P-3012 PEK:** LPG Gas Detector - SH10 Sensor Head - Catalytic Sensor – Accelerometer sensor
- P-3412 PEK:** Propane Gas Detector - SH10 Sensor Head - Catalytic Sensor - Accelerometer sensor
- P-3035 PES:** LPG Gas Detector – SH30 Sensor Head - Pellistor Sensor – Accelerometer sensor
- P-6434 PES:** Hydrogen Sulfide Gas Detector – SH30 Sensor Head - Electrochemical Sensor - Accelerometer sensor

The designed values are:

P - (XY) (W) (Z) (PE/PEK/PES)				
(XY) Gas Type				
30. LPG	46. Methylethylketon	62. Ethylene oxide	78. Acetaldehyde	(W) Sensor Head
31. Methane	47. Ethyl acetate	63. Vinylacetate(VAM)	79. Hydrogen Chloride	1. SH10
32. Petrol vapour	48. Ammonia	64. Hydrogen sulfide	80. TVOC	2. SH20
33. n Butane	49. Ethylene	65. Oxygen	81. VOC	3. SH30
34. Propane	50. Acetic acid	66. Sulfur dioxide	82. Ozone	
35. Hexane	51. Butyl acetate	67. Nitric oxide	83. HF	(Z) Sensor Type
36. Hydrogen	52. Cyclo hexane	68. Nitrogen dioxide	84. Phospine	1. Semiconductor
37. Pentane	53. Cyclo pentane	69. Chlorine	85. Isobutylene	2. Catalytic
38. Toluene	54. Dioxane	70. Hydrocarbon	86. Silane	3. Infrared
39. Methanol	55. Ethane	71. Carbondioxide	87. Diborane	4. Electrochemical
40. Heptane	56. Butyl alcohol	72. Freon Gas	88. Arsine	5. Pellistor
41. Octane	57. Stylen	73. JP8	89. Germane	6. PID
42. Ethanol	58. Propylene	74. Formaldehyde	90. Air Quality	
43. Iso propanol	59. Xylene	75. HCN	91. A2L Refrigerant Gas	
44. Carbon monoxide	60. Acetylene	76. Hydrogen peroxide		
45. Acetone	61. Benzene	77. Nonane		

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[15.2] **Ratings:**

Vin: 12 -24 Vdc ; Pmax: 2,5 W max

[15.3] **Safety Ratings:**

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[15.4] **Ambient temperature and temperature classes:**

Ambient temperature	Temperature class
-40 °C ÷ +40 °C	T5
-40 °C ÷ +50 °C	T4
-40 °C ÷ +70 °C	T4

[15.5] **Degree of protection (IP code):**

IP65 (EN 60529)

[15.6] **Warnings:**

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[16] **Report:** AT20-0056726-01

[16.1] **Routine (factory) tests:**

The manufacturer shall carry out the routine test prescribed at clauses 27 of the EN 60079-0.

[16.2] **Conformity with the documentation:**

The manufacturer shall carry out the verifications or tests necessary to ensure that the product complies with the documentation.

Marking the equipment in accordance with Clause 29 of EN 60079-0, the manufacturer attests on his own responsibility that:

- the equipment has been constructed in accordance with the applicable requirements of the relevant standards in safety matters;
- the routine verifications and routine tests in 28.1 of EN 60079-0 have been successfully completed with positive results.

[16.3] **Installation conditions:**

Above referred equipment is foreseen to be installed in locations where there are environmental conditions, as clearly specified at clause 1, par. 2 of EN 60079-0.

Installation and use in atmospheric and environmental conditions that are out of above mentioned intervals request special considerations and additional measures by the side of installer or user.

These should be specified to the manufacturer by the user;

It is not a required by applicable standard listed in [9] that the certification body confirm suitability for the adverse conditions.

This equipment shall be installed and maintained according to installation and maintenance standards EN 60079-14 and EN 60079-17, and strictly in compliance with details listed in manufacturer's use and safety instructions

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[17] **Special Condition of use (X):**

P-(2 or 3)*; P-**1*PE; P-**1*PEK and P-**3*PES 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.

[18] **Essential Health and safety Requirements:**

This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in [9].

This Certificate **does not** cover hazards coming from environmental conditions different from those clearly and precisely indicated and covered in clause 1 of EN 60079-0.

ESHR 1.2.7 According Annex VIII of the Directive

ESHR 1.4 Not verified.

ESHR 1.5 Not verified.

ESHR 3 Not applied.

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at [9], the following are considered relevant to this product, and conformity is demonstrated in the report:
None

[19] **Descriptive documents:**

DL-AT20-0056726-01 dated 2020-10-08

[20] **Certification Validity Conditions:**

The use of this Certificate is subject to the Certification Scheme and to the Regulation applicable to holders of IMQ Certificates.

The validity of this certificate is subject to the condition that the manufacturer complies with the results of the document review and of the pertinent requirement if any included, recorded in the relevant copy of documentation as per 19.

One copy of the mentioned documentation is kept in IMQ file.

[21] **Variations**

2019 October: First issue

2020 October

- New models PEK and PES
- New company address