



EC-Type Examination Certificate

(1)

(2)

Equipment or Protective Systems Intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC

(3) EC-Type Examination Certificate Number:

FTZÚ 05 ATEX 0372X

(4) Equipment: **Sensor head of flammable gas detector, type: EKP-1/P**

(5) Manufacturer: **Z.B.P. "SENSOR GAZ" Andrzej Rejowicz**

(6) Address: **ul. Biskupa Burschego 7, 43-100 Tychy, Poland**

(7) This equipment or protective system and any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The Physical Technical Testing Institute, notified body number 1026 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 confidential Report N°

05/0372 dated 14 February 2006

(9) Compliance with Essential Health and safety requirements has been assured by compliance with:

EN 50014:1997+A1, A2

EN 50018:2000

EN 50020:2002

(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 EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and testing of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

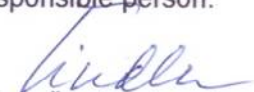
(12) The marking of the equipment or protective system shall include following:



II 2G EEx d ia IIC T5

This EC-Type Examination Certificate is valid till: **28. 02. 2011**

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: **20. 02. 2006**

Number of pages: **3**

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Physical Technical Testing Institute
Ostrava-Radvanice

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(14) **EC-Type Examination Certificate N° FTZÚ 05 ATEX 0372X**

(15) Description of Equipment:

The sensing head of flammable gas detector is a device consisting of steel chamber, which contains breathing device of sintered metal. Inside of a chamber is installed a semiconductor sensor with integrated heating elements. The connection device of sensing head forms bare conductors (pins) protruding an compound, which closes flameproof enclosure "d" of chamber. The connection device is designed only for connection of intrinsically safe circuits "i".

Technical data:

heating circuit: AC/DC 5,0 V \pm 0,2 V, 56 \pm 5 mA

sensor circuit: DC 5,0 V \pm 0,2 V, $P_s \leq 15$ mW

Intrinsically safe parameters:

terminals (1-4): $U_i = 7$ V, $I_i = 100$ mA, $L_i = 620$ μ H, $C_i = 130$ nF

terminals (2-3): $U_i = 6$ V, $P_i = 15$ mW, $L_i = 10$ μ H, $C_i \cong 0$

Note: I.S. circuits (1-4) and (2-3) can't be consider as separated circuits in accordance with clause 6.4.1 EN 50020:2002.

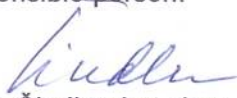
(16) Report No. : 05/0372 (37 pages, 8 annexes)

(17) Special conditions for safe use:

- Part of device, which consists of free surface of compound with connection pins, must be additionally protected by cover, complying the requirements of impact endurance according to EN 50014:1997 clause 23.4.3.1.
- Sensing head of the connection device of flammable gas detector is designed only for connection to intrinsically safe circuits.
- The verification of measuring function (performance requirements) are not in scope of this certificate.

(18) Essential Health and Safety Requirements: They are included in standards, which are mentioned in clause (9) of this certificate. The product was approved in accordance with above mentioned standards and manufacturer instruction.

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 20. 02. 2006

Number of pages: 3

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Physical Technical Testing Institute
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(14) **EC-Type Examination Certificate N° FTZÚ 05 ATEX 0372X**

(19)

LIST OF DOCUMENTATION

- Instruction for use No. IO 003/1 01/2006
- Approval report No. 4/10/05 01/2006
- Drawings No.:
 - 003.00 - 0/1 09/2005
 - 003.00 - 1/1 09/2005
 - 001.00 - 2/1 09/2005
 - 003.00 - 3/1 09/2005
 - 003.00 - 4/1 09/2005
 - 003.00 - 5/1 09/2005
 - 001.00 - 6/1 09/2005
 - 002.00 - 6/1 09/2005
 - 003.00 - 7/1 09/2005
 - 003.00 - 8/1 09/2005
 - 003.00 - 9/1 09/2005
- Technological instruction No.:
 - IT 001/1 10/2005
 - IT 003/1 10/2005



Date of issue: 20. 02. 2006

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Supplement No. 1 to EC-Type Examination Certificate

Equipment or Protective Systems Intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC

(3) EC-Type Examination Certificate Number:

FTZÚ 05 ATEX 0372X

(4) Equipment: **Gas detector sensing head type: EKP-1/P**

(5) Manufacturer: **Z.B.P. "SENSOR GAZ" Andrzej Rejowicz**

(6) Address: **ul. Biskupa Burschego 7, 43-100 Tychy, Poland**

(7) This supplement of certificate is valid for: - prolongation of certificate validity.

(8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.

(9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 Paragraph 6) of Directive No. 94/9/EC. The Directive contains another requirement, which manufacturer shall fulfill before products are placed on market or introduced in service.

(10) Safety requirements of modified parts were fulfilled by satisfying the following standards:

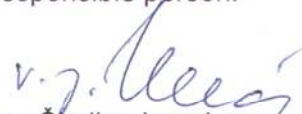
EN 60079-0:2006; EN 60079-1:2007; EN 60079-11:2007

(11) Marking of equipment designed according to this supplement shall contain symbols:

Ex II 2G Ex d ia IIC T5

(12) This type examination certificate is valid till: **29. 01. 2015**

Responsible person:


Ing. Šindler Jaroslav
Head of certification body



Date of issue: **29. 01. 2010**

Number of pages: **2**
Page: **1/2**

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Physical Technical Testing Institute
Ostrava-Radvanice

(13)

Schedule

(14)

Supplement No. 1 to
EC-Type Examination Certificate N° FTZÚ 05 ATEX 0372X

(15) Description of Equipment:

Neither the construction nor technical parameters of the gas detector sensing head type EKP-1/P were modified.

The supplement verifies equipment conformity with requirements of new edition of standards mentioned in clause (10) and prolongs certificate validity.

(16) Report No.: 05/0372-1 on 28.01.2010

(17) Special conditions for safe use:

17.1 The connection facility of the gas detector sensing head is designed only for connection to the intrinsically safe circuits.

17.2 The connection facility, that forms free surface of insulating compound with connection pins, must be protected by additional cover, or enclosure complying requirements for enclosure in accordance with EN 60079-0 with degree of protection IP20 at least.

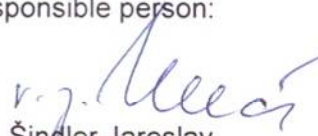
(18) Essential Health and Safety Requirements: They are included in standards, which are mentioned in clause (10) of this certificate supplement. The product was approved in accordance with above mentioned standards.

(19) List of documentation:

Update:

Instruction for use No.:	IO 003/2	11/2009
Approval report No.:	4/10/05-2	11/2009
Technological procedures No.:	IT 003/2	11/2009
	IT 001/2	11/2009
Drawings No.:	003.00 - 0/2	11/2009
	003.00 - 1/2	11/2009
	002.00 - 6/2	11/2009
	003.00 - 8/2	11/2009

Responsible person:


Ing. Šindler Jaroslav
Head of certification body



Date of issue: 29. 01. 2010

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Supplement No. 2 to EC-Type Examination Certificate

Equipment or Protective Systems Intended for Use
in Potentially Explosive Atmospheres
(Directive 94/9/EC)

(3) EC-Type Examination Certificate Number:

FTZÚ 05 ATEX 0372X

(4) Equipment or protective system: **Gas detector sensing head type: EKP-1/P**

(5) Manufacturer: **Z.B.P. SENSOR GAZ Andrzej Rejowicz**

(6) Address: **ul.Przemysłowa 55, 43-100 Tychy, Poland**

(7) This supplement of certificate is valid for:

- change of marking
- prolongation of certificate validity
- application of new standards
- change of technical parameters
- change of manufacturer address

(8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.

(9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 Paragraph 6) of Directive No. 94/9/EC. The Directive contains another requirements, which manufacturer shall fulfil before products are place on market or introduce in service.

(10) Safety requirements of modified parts were fulfilled by satisfying the following standards:

EN 60079-0:2012, EN 60079-1:2007, EN 60079-11:2012

(11) Marking of equipment shall contain symbols:



II 2G Ex d ia IIC T5 Gb

(12) This type examination certificate is valid till: **24.11.2020**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: **24.11.2015**

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Physical Technical Testing Institute
Ostrava – Radvanice

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(14)

Supplement No. 2 to
EC-Type Examination Certificate N° FTZÚ 05 ATEX 0372X

(15) Description of Equipment or Protective System:

The equipments type EKP-1/P still without changes. The equipment is manufactured according to the verified documentation shown in the basic certificate, supplement nr.1 and in this supplement and complies with requirements of upgraded standards mentioned in clause (10). Technical parameters were modified. The validity of the certificate is prolonged till 24.11.2020.

Technical parameters:

Pins 2 – 3 and 1 - 4: $U_i = 10\text{ V}$, $P_i = 0.765\text{ W}$, $C_i \approx 0$, $L_i \approx 0$

(16) Report No.: 05/0372-2

(17) Special conditions for safe use:

17.1 The connection facility of the gas detector sensing head is designed only for connection to the intrinsically safe circuits.

17.2 The connection facility, that forms free surface of insulating compound with connection pins, must be protected by additional cover, or enclosure complying requirements for enclosure in accordance with EN 60079-0 with degree of protection IP20 at least. Insulating compound surface must be protected against light.

(18) Essential Health and Safety Requirements:

Essential health and safety requirement of Directive 94/9/EC are covered by the standards mentioned in clause (10) of this supplement according which the new model was verified and in the manufacturer's Instruction for Using.

(19) List of Documentation:

Title:	Drawings No.:	Date:	Nr. of pages:
Recertification documentation	Nr 4/10/05-3	06.2015	3
List of documents	Nr 063.00-01	06.2015	1

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 24.11.2015

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