Physical-Technical Testing Institute
Ostrava - Radvanice

(1) Supplementary EU - Type Examination Certificate No.5

(2) **Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres (Directive 2014/34/EU)**

(3) EU - Type Examination Certificate number:

FTZÚ 05 ATEX 0371X

(4) Product: **Gas detector sensing head type: EKP-1/N, EKP-1/W, EKP-1/NW EKP-1/N/H_2, EKP-1/W/H_2, EKP-1/NW/H_2**

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

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

(7) This supplementary certificate extends EC - Type Examination Certificate No. FTZÚ 05 ATEX 0371X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

(8) The Physical-Technical Testing Institute, Notified Body number 1026, in accordance with Articles 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26.02.2014, certifies that this product, as modified by this supplementary certificate, has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

(9) In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20.04.2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20.04.2016.

(10) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-11:2012

(11) The marking of the product shall include the following:

II 2G Ex db ia IIC T5 Gb

(12) This certificate is valid till: **30.11.2025**

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body

PHYSICAL-TECHNICAL TESTING INSTITUTE FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV FTZÚ Ex AO 210 NB 1026

Date of issue: 13.11.2020

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
tel.: +420 595 223 111, +420 604 203 525, e-mail: ftzu@ftzu.cz, www.ftzu.cz

(13) Schedule

(14) Supplementary EU - Type Examination Certificate No. 5 to FTZÚ 05 ATEX 0371X

(15) Description of the variation to the Product:

The subject of this supplementary certificate is:

- Evaluation according to the newest standards;
- Prolongation of certificate validity.

The equipment type EKP-1/N, EKP-1/W, EKP-1/NW, EKP-1/N/H_2, EKP-1/W/H_2, EKP-1/NW/H_2 remain unchanged.

The design remains unchanged. Electrical parameters mentioned in the Supplement No. 4 to the certificate No. FTZU 05 ATEX 0371 remain unchanged.

The measuring function according to annex II paragraph 1.5.5. of the directive 2014/34/EU is not matter of this EU – Type Examination.

The equipment is verified according to EN IEC 60079-0:2018, EN 60079-1:2014 and EN 60079-11:2012.

(16) Report Number.: 05/0371/5

(17) Specific Conditions of Use:

1. The connection facility of the gas detector sensing head is designed only for connection to the intrinsically safe circuits.
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 IEC 60079-0 with degree of protection IP20 at least. Insulating compound surface must be protected against light.

(18) Essential Health and Safety Requirements:

Compliance with the Essential Health and Safety Requirements is covered by standards mentioned in clause (10) of this supplementary certificate.

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV AO 210 NB 1026

Date of issue: 13.11.2020

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(13) Schedule

(14) # Supplementary EU - Type Examination Certificate No. 5 to FTZÚ 05 ATEX 0371X

(19) Drawings and Documents:

Number	Issue	Sheets	Date	Description
IO 001/4	--	7	09/2020	Instruction of use
3/10/05-4	--	6	09/2020	Recertification documentation
IT 011/02	--	4	09/2020	Technological instruction
Nr 065.00-01	2	1	09/2020	List of documents
001.00-0	5	1	09/2020	Drawing
001.00-1	4	1	09/2020	Drawing
001.00-3	5	1	09/2020	Drawing
001.00-4	3	1	09/2020	Drawing
001.00-9	5	1	09/2020	Drawing
001.00-12	4	1	09/2020	Drawing
001.01-0	2	1	09/2020	Drawing
001.01-3	2	1	09/2020	Drawing
001.01-4	2	1	09/2020	Drawing
002.00-0	5	1	09/2020	Drawing
002.00-3	2	1	09/2020	Drawing
002.00-4	2	1	09/2020	Drawing
002.00-8	5	1	09/2020	Drawing
002.01-0	2	1	09/2020	Drawing
002.01-3	2	1	09/2020	Drawing

Responsible person:

Ing. Lukáš Martinák
Head of Certification Body

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV Ex AO 210 NB 1026

Date of issue: 13.11.2020

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
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Physical Technical Testing Institute
Ostrava – Radvanice

Supplement No. 4 to 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 0371X

(4) Equipment or protective system: **Gas detector sensing head type: EKP-1/N, EKP-1/W, EKP-1/NW EKP-1/N/H_2, EKP-1/W/H_2, EKP-1/NW/H_2**

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

(6) Address: **ul.Przemyslowa 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

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

(11) Marking of equipment shall contain symbols:

II 2G Ex d ia IIC T5 Gb

(12) This type examination certificate is valid till: **08.10.2020**

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body

PHYSICAL-TECHNICAL TESTING INSTITUTE
AO 210
NB 1026

Date of issue: 08.10.2015

FTZÚ, s.p., Pikartská 1337/7, 716 07 Ostrava-Radvanice, Czech Republic,
tel +420 595 223 111, fax +420 596 232 672, ftzu@ftzu.cz, www.ftzu.cz

(13) Schedule

(14) # Supplement No. 4 to EC-Type Examination Certificate N° FTZÚ 05 ATEX 0371X

(15) Description of Equipment or Protective System:

The equipments type EKP-1/N, EKP-1/W, EKP-1/NW, EKP-1/N/H_2, EKP-1/W/H_2, EKP-1/NW/H_2 still without changes. The equipment is manufactured according to the verified documentation shown in the basic certificate, supplement nr.1, 2, 3 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 08.10.2020.
Technical parameters:

Type EKP-1/N, EKP-1/W, EKP-1/N/H_2, EKP-1/W/H_2:

Pins 2 – 3: Ui = 10 V, Pi = 1 W, Ci ≈ 0, Li ≈ 0

Type EKP-1/NW and EKP-1/NW/H_2:
Pins 4,2 – 3: Ui = 6 V, Pi = 1 W, Ci ≈ 0, Li ≈ 0

(16) Report No.: 05/0371-4

(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.

17.3 The verification of measuring function of apparatus is not matter of this certificate.

(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:	Drawing No.:	Date:	Nr. of pages:
Recertification documentation	Nr 3/10/05-3	06.2015	6
List of documents	Nr 065.00-01	06.2015	1

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ Ex AO 210 NB 1026

Date of issue: 08.10.2015

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Physical Technical Testing Institute

Ostrava-Radvanice

(1)

Supplement No. 3 to EC-Type Examination Certificate

(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 0371X

(4) Equipment: **Gas detector sensing head type: EKP-1/N, EKP-1/NW, EKP-1/W**

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

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

(7) This supplement of certificate is valid for extension by a new variants,

types: **EKP-1/N/H_2 , EKP-1/NW/H_2 , EKP-1/W/H_2**

(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 place on market or introduce in service.

(10) Safety requirements of modified parts were fulfill by satisfying of 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:

II 2G **Ex d ia IIC T5**

(12) This type examination certificate is valid till: 28. 01. 2015

Responsible person:

Ing. Šindler Jaroslav
Head of certification body

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ AO 210 NB 1026

Date of issue: 15. 06. 2011

Number of pages: 3
Page: 1/3

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Physical Technical Testing Institute

Ostrava-Radvanice

(13) **Schedule**

(14) **Supplement No. 3 to**
EC-Type Examination Certificate N° FTZÚ 05 ATEX 0371X

(15) Description of Equipment:
The flameproof enclosure design, maximum input power or intrinsically safe parameters of a sensing head of flammable gas detector weren't modified.
This supplement verifies and extends the series of the sensing head of flammable gas detector with variants designed for selective measurement of hydrogen gas concentration.

Marking of the new variants:	EKP-1/N/H_2	EKP-1/W/H_2	EKP-1/NW/H_2
Installed pelistor types:	PC-31xx	PC-62x	PC-31xx + PC-62x
Technical parameters:			
Rated voltage: DC	1 V...1,8 V	0,8 V...1,5 V	1 V...1,8 V; 0,8 V...1,5 V
Rated current:	≤ 45 mA	≤ 40 mA	≤ 45 mA; ≤ 40 mA

Intrinsically safe parameters:

EKP-1/N/H_2, EKP-1/W/H_2 terminals No. (2-3):	U_i = 10 V, I_i = 100 mA, L_i = 200 µH, $C_i \cong 0$
EKP-1/NW/H_2 terminals No. (3-4), (2-3):	U_i = 6 V, I_i = 80 mA, L_i = 200 µH, $C_i \cong 0$
Total maximum power input of sensing head:	P_i = 1 W

(16) Report No.: 05/0371-3 on 09. 06. 2011

(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.
17.3 The verification of measuring function of apparatus is not matter of this certificate.

(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.

Responsible person:

Ing. Šindler Jaroslav
Head of certification body

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV AO 210 NB 1026

Date of issue: 15. 06. 2011

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(13) **Schedule**

(14) # Supplement No. 3 to EC-Type Examination Certificate N° FTZÚ 05 ATEX 0371X

(19) List of documentation:

Instruction for use No.: IO 006/1		05/2011
Approval technical report No.: 3/10/05-2, supplement No. 1		05/2011
Technological procedures No.: IT 001/2, supplement No. 1		05/2011
Drawings No.:	001.00 - 0/3	04/2011
	001.00 - 3/3	04/2011
	001.00 - 9/3	04/2011
	001.00 - 10/3	04/2011
	001.00 - 11/2	04/2011
	001.00 - 12/2	04/2011
	001.00 - 13/1	04/2011
	002.00 - 0/3	04/2011
	002.00 - 3/2	04/2011
	002.00 - 7/2	04/2011
	002.00 - 8/3	04/2011
	002.00 - 9/2	04/2011

Responsible person:

Ing. Šindler Jaroslav
Head of certification body

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ AO 210 NB 1026

Date of issue: 15. 06. 2011

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, phone +420 59 623 27 15, fax +420 59 623 26 72, e-mail: ftzu@ftzu.cz

Physical Technical Testing Institute

Ostrava-Radvanice

(1)

Supplement No. 2 to EC-Type Examination Certificate

(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 0371X

(4) Equipment: **Gas detector sensing head type: EKP-1/N, EKP-1/NW**

(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,
- extension by a new variant, type **EKP-1/W**

(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 place on market or introduce in service.

(10) Safety requirements of modified parts were fulfill by satisfying of 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: 28. 01. 2015

Responsible person:

Ing. Šindler Jaroslav
Head of certification body

PHYSICAL-TECHNICAL TESTING INSTITUTE
FTZÚ Ex
AO 210
NB 1026

Date of issue: 28. 01. 2010

Number of pages: 3
Page: 1/3

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Physical Technical Testing Institute

Ostrava-Radvanice

(13) **Schedule**

(14) **Supplement No. 2 to**
EC-Type Examination Certificate N° FTZÚ 05 ATEX 0371X

(15) Description of Equipment:

Neither the construction nor technical parameters of the gas detector sensing head type: EKP-1/N, EKP-1/NW were modified. A variant sensing head EKP-1/W is added:

Nominal parameters:	Supply voltage	DC 2,0 V ... 3,2 V
	Current:	≤ 60 mA
Intrinsically safe parameters, (2-3):		U_i = 10V, L_i = 200 μH, $C_i \cong 0$
Maximum input power		P_i = 1W

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

(16) Report No.: 05/0371-2 on 27.01.2010

(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.

Responsible person:

Ing. Šindler Jaroslav
Head of certification body

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ Ex AO 210 NB 1026

Date of issue: 28. 01. 2010

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(13) Schedule

(14) Supplement No. 2 to
EC-Type Examination Certificate N° FTZÚ 05 ATEX 0371X

(19) List of documentation:

Update:

Instruction for use No.: IO 001/2		11/2009
Approval report No.: 3/10/05-2		11/2009
Technological procedures No.:	IT 002/2	11/2009
	IT 001/2	11/2009
Drawings No.:	001.00 - 0/2	11/2009
	002.00 - 0/2	11/2009
	001.00 - 1/2	11/2009
	001.00 - 4/2	11/2009
	001.00 - 5/2	11/2009
	001.00 - 7/2	11/2009
	002.00 - 6/2	11/2009
	001.00 - 3/2	11/2009
	001.00 - 10/2	11/2009
	001.00 - 9/2	11/2009
	002.00 - 8/2	11/2009

Supplement:

Drawings No.:	001.00 - 11/1	11/2009
	001.00 - 12/1	11/2009

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ AO 210 NB 1026

Responsible person:

Ing. Šindler Jaroslav
Head of certification body

Date of issue: 28. 01. 2010

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, phone +420 59 623 27 15, fax +420 59 623 26 72, e-mail: ftzu@ftzu.cz

(1)

Supplement No. 1 to EC-Type Examination Certificate

(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 0371X

(4) Equipment: **Flammable gas detector sensing head, type: EKP-1/N**

(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 modification of certified apparatus with type marked:
EKP-1/NW

(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 other 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 50014:1997 +A1,A2, **EN 50018:2000,** **EN 50020:2002**

(11) Marking of equipment shall contain symbols:

Ex II 2G EEx d ia IIC T5

(12) The type examination certificate is valid till: 31. 01. 2011

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ AO 210 NB 1026

Date of issue: 09. 05. 2006

Number of pages: 3

Page: 1/3

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(13) Schedule

(14) # Supplement No. 1 to EC-Type Examination Certificate N° FTZÚ 05 ATEX 0371X

(15) Description of Equipment:

Flammable gas detector sensing head in variant EKP-1/NW has installed two measuring sensors in flameproof enclosure chamber. Each sensor consists of one active and one compensatory or reference component. The design of measuring chamber with type of protection flameproof enclosure "d" is identical with certified type EKP-1/N. The connection device is also identical and it is also design for connection only to intrinsically safe circuits "i".

Technical data:

Rated voltage:	$U_{(2-3)}$ = 3,0 V . . .3,5 V DC.	(Pellistor PC - 31xx)
	$U_{(4-3)}$ = 2,0 V . . .3,0 V DC.	(Pellistor PC - 32xx)
Rated current of each pellistor:	≤ 60 mA	
Intrinsically safe parameters, terminals (3-2),(3-4):	U_i = 6 V, I_i = 80 mA, L_i = 200 μH, $C_i \cong 0$	
The total maximum power of sensing detector head:	P_i = 1 W	

(16) Report No. : Supplement No. 1 to report 05/0371

(17) Special conditions for safe use:

- The equipment part, which is form by free surface of compound with connection pins, must be additionally protected by cover, that comply the requirements for impact endurance according to EN 50014:1997 cl. 23.4.3.1.
- The connection device of flammable detector sensing head is design for connection only to intrinsically safe circuits.
- The verification of measuring function of apparatus is not subject of this certificate.

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

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ Ex AO 210 NB 1026

Date of issue: 09. 05. 2006

Number of pages: 3

Page: 2/3

(13) **Schedule**

(14) **Supplement No. 1 to**
EC-Type Examination Certificate N° FTZÚ 05 ATEX 0371X

(19) **LIST OF DOCUMENTATION**

• Supplement to approval report No. 3/10/05	01/2006
• Drawings No.:	
002.00 – 0/1	09/2005
002.00 – 3/1	09/2005
002.00 – 4/1	09/2005
002.00 – 5/1	09/2005
002.00 – 6/1	09/2005
002.00 – 7/1	09/2005
002.00 – 8/1	09/2005
002.00 – 9/1	09/2005

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ AO 210 NB 1026

Date of issue: 09. 05. 2006

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Physical Technical Testing Institute

Ostrava-Radvanice

(1)

EC-Type Examination Certificate

(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 0371X

(4) Equipment: **Flammable gas detector sensing head, type: EKP-1/N**

(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°

05/0371 dated 23 January 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:

Ex II 2G EEx d ia IIC T5

This EC-Type Examination Certificate is valid till: **31. 01. 2011**

Responsible person:

Dipl. Ing. Šindler Jaroslav

Head of certification body

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ AO 210 NB 1026

Date of issue: 25. 01. 2006

Page: 1

Number of pages: 1/3

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(13) **Schedule**

(14) EC-Type Examination Certificate N° FTZÚ 05 ATEX 0371X

(15) Description of Equipment:

The sensing head of flammable gas detector is a device consisting of steel chamber, equipped with breathing device made of sintered metal. Inside of chamber is installed one active pelistor with catalytic layer and one compensation element. The connection of sensing head is provided by bare conductors protruding the encapsulant, which close flameproof enclosure "d" of chamber. The connection device is designed only for connection of intrinsically safe circuits "i".
Basic technical data:

Supply voltage:	DC 3,0 V . . .3,5 V.
Rated current:	≤ 60 mA
Intrinsically safe imput parameters, pins No. (2-3):	
	U_i = 10 V, L_i = 200 μH, $C_i \cong 0$
	Total input power: P_i = 1 W

(16) Report No. : 05/0371 (38 pages, 9 annexes)

(17) Special conditions for safe use:

- part of apparatus, which is formed by free surface of encapsulant with terminal connector, must be protected by additional cover, complying the requirements of impact endurance according to EN 50014:1997 cl. 23.4.3.1.
- the connection device of sensing head of flammable gas detector is designed for connection only intrinsically safe circuits.
- the performance test are not in the 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

PHYSICAL-TECHNICAL TESTING INSTITUTE FTZÚ Ex AO 210 NB 1026

Date of issue: 25. 01. 2006

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Physical Technical Testing Institute

Ostrava-Radvanice

(13) Schedule

(14) EC-Type Examination Certificate N° FTZÚ 05 ATEX 0371X

(19) **LIST OF DOCUMENTATION**

• Instruction for use No.: IO 001/1	01/2006
• Approval report No. 3/10/05	01/2006
• Drawings No.:	
001.00 – 0/1	09/2005
001.00 – 1/1	09/2005
001.00 – 2/1	09/2005
001.00 – 3/1	09/2005
001.00 – 4/1	09/2005
001.00 – 5/1	09/2005
001.00 – 6/1	09/2005
001.00 – 7/1	09/2005
001.00 – 8/1	09/2005
001.00 – 9/1	09/2005
001.00 – 10/1	09/2005
• Technological instructions No. IT 001/1	10/2005
• Technological instructions IT 002/1	10/2005

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