



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 0090

- (4) Equipment or protective system: **In-line angular single-direction flame arrester for stable
detonation DN 80, type J 474.80/1/P4AD/II**

- (5) Manufacturer: **ADAMOV – SYSTEMS a.s.**

- (6) Address: **Mírová 2, 679 04 Adamov, Czech republic**

- (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°

05/0090 dated 15 June 2005

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

EN 12874:2001

- (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 1G IIA**

This EC-Type Examination Certificate is valid till: **30 of June 2010**

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 16 of June 2005

Number of pages: 3

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Physical Technical Testing Institute
Ostrava-Radvanice

(13) **Schedule**

(14) **EC-Type Examination Certificate N° FTZÚ 05 ATEX 0090**

(15) Description of Equipment or Protective System:

In-line angular single-direction flame arrester for stable detonation, type J 474.80/1/P4AD/II is designed as single-direction arrester for stable detonation. Flame arrester consists of the following main parts:

- arrester housing
- arrester cover with anti-detonation muffler
- tape flame arrester element

Flame arrester element consists of two tape flame arrester elements with gap (high of crimped tape) $\leq 0,4$ mm.

Technical data:

Nominal inside diameter of arrester	DN 80
Nominal pressure	PN 6
Test pressure	1,0 MPa
Explosion group	IIA
Constructional gap of joint in arrester element	$\leq 0,4$ mm
Service temperature	- 30 °C + 60 °C
Service pressure	max. 0,13 MPa
Mass	26 kg

(16) Report No. : 05/0090

(17) Special conditions for safe use: --

(18) Essential Health and Safety Requirements:

18.1 Apparatus comply with essential requirement of Directive 94/9/EC, including annex 2, clause 1.0.6.

18.2 Installation and service requirements comply with requirement in accordance with cl. 6.4 of EN 12874:2001 and are given in Instruction for installation, No. OÚ/006/2005/CZ.

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 16 of June 2005

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(13)

Schedule

(14) **EC-Type Examination Certificate N° FTZÚ 05 ATEX 0090**

(19)

LIST OF DOCUMENTATION

- Technical specification document No. 1169/2005 ... 29.03.2005
- Instruction for installation, service and maintenance No. OÚ/006/2005/CZ ... 6/2005
- Drawings No.
 - 429 301 377 ... 29.03.2005
 - 425 401 367 ... 29.03.2005
 - 425 401 582 ... 29.03.2005
 - 420 400 182c ... 29.03.2005
 - 420 400 183c ... 29.03.2005
 - 420 400 511b ... 29.03.2005
 - 420 301 315 ... 29.03.2005
 - 425 401 583 ... 29.03.2005
 - 420 301 316 ... 29.03.2005
 - 420 401 363 ... 29.03.2005
 - 420 400 600 ... 29.03.2005
 - 420 201 404 ... 29.03.2005
 - 446 230a ... 29.03.2005
 - 420 201 132 ... 29.03.2005
 - 420 401 118 ... 29.03.2005
 - 450 190a ... 29.03.2005
- Piece list No.
 - 429 301 377 ... 29.03.2005
 - 425 401 367 ... 29.03.2005
 - 425 401 582 ... 29.03.2005
 - 425 401 583 ... 29.03.2005





(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 0090

(4) Equipment or protective system: **In-line angular single-direction flame arrester for stable
detonation DN 80, type J 474.80/1/P4AD/II**

(5) Manufacturer: **Adast Systems, a.s.**

(6) Address: **Mírová 2, 679 04 Adamov, Czech Republic**

(7) This supplement of certificate is valid for: - modification of certified apparatus
- modification of manufacturer's name
- prolongation of certificate validity

(8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, a list of which is mentioned in the 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 placed on market or introduced in service.

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

EN 12874:2001

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

 **II 1G IIA**

(12) This type examination certificate is valid till: **28. 02. 2015**

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 26. 02. 2010

Number of pages: 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 0090**

(15) Description of Equipment or Protective System:

Design of the flame arrester, type J 474.80/1/P4AD/II, is the same, modification in production and certification documentation has no influence to the arrester performance.

The standard EN 12874:2001 is still valid without any modification.

(16) Report No.: 05/0090 + supplement No.1

(17) Special conditions for safe use: --

(18) Essential Health and Safety Requirements:

18.1 The apparatus fulfil the essential health and safety requirement of Directive 94/9/EC, and standard mentioned in (10).

18.2 Installation and service requirements are given in Instruction for installation, service and maintenance No. OÚ/006/2005/CZ.

(19) **LIST OF DOCUMENTATION**

- Instruction for installation, service and maintenance No. OÚ/006/2005/CZ on 6/2005 was replaced by Instruction for installation, service and maintenance No. OÚ/006/2005/CZ on 6/2009
- Drawings No. 429 301 377 on 29.03.2005 was replaced by drawing No. 429 301 377 on 26.03.2009
- Drawings No. 420 201 404 on 29.03.2005 was replaced by drawing No. 420 201 404 on 26.03.2009

For further documentation see certificate FTZÚ 05 ATEX 0090.

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 26. 02. 2010

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FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, tel +420 595 223 111, fax +420 596 232 672, e-mail: ftzu@ftzu.cz



(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 0090X

(4) Equipment or protective system: **Flame arrester for stable detonation,
In-line, one-directional, angle, DN80,
Type J 474.80/1/P4AD/II**

(5) Manufacturer: **Adast Systems, a.s.**

(6) Address: **Mírová 2, 679 04 Adamov, Czech Republic**

(7) This supplement of certificate is valid for: - verification according to standard listed in (10).

(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 ISO 16852:2010

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



(12) The type examination certificate is valid till: **30. 03. 2017**

Responsible person:

Ing. Martinák Lukáš
Head of certification body



Date of issue: **30. 03. 2012**

Number of pages: **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 0090X**

(15) Description of Equipment or protective system:

The design of the flame arrester type J 474.80/1/P4AD/II wasn't modified. This flame arrester is in-line, one-directional, angle, for stable detonation DET 4.

The supplement verifies requirements of new standard mentioned in clause (10).

The marking was modified and the warning labels were added.

Size flame arrester:	DN80
Explosion group:	IIA
Service temperature:	$-20^{\circ}\text{C} \leq T_o \leq 60^{\circ}\text{C}$
Service pressure:	$p_o \leq 0,13 \text{ MPa}$
Stabilised burning	BC: c (without burning time)

(16) Report No.: 05/0090-2 on 29.03.2012

The sample of flame arrester for stable detonation was tested for stable detonation without restriction. During the all stable detonation tests and deflagration tests the flame arrester sample prevented flame transmission.

The burning test wasn't carried out.

(17) Special conditions for safe use:

17.1 Instruction for installation of this flame arrester are given in manufacturer's document No. OÚ/006/2005-DET/CZ -VII/2011.

17.2 The flame arrester wasn't verified for application where the burning can occur.

17.3 For safe application of flame arresters must be fulfil requirements according to EN ISO 16852 for installation, limits for use and supplementary protective measures.

(18) Essential Health and Safety Requirements: They are included in standards, which are mentioned in clause (10) of this certificate and manufacturer's documentation.

The other requirements and EC Directives can be valid for the product.

Responsible person:


Ing. Martinák Lukáš

Head of certification body



Date of issue: 30. 03. 2012

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Physical Technical Testing Institute
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(13)

Schedule

(14)

Supplement No. 2 to
EC-Type Examination Certificate N° FTZÚ 05 ATEX 0090X

(19) List of documentation:

Updated documentation:

Technical description No.	1169/2005	01.07.2011
Drawings No.:	429301377, revision b)	08.02.2011
	429301811	26.08.2011
	425401582, revision a)	02.02.2011
	425401583, revision a)	02.02.2011
	420401118, revision d)	31.01.2011
Instruction for use No.	OÚ/006/2005-DET/CZ VII/2011	24.11.2011
Supplement to documentation:		
Drawings No.:	425401759	31.01.2011
	420401740	31.01.2011

Responsible person:

Ing. Martinák Lukáš
Head of certification body



Date of issue: 30. 03. 2012

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