



Physical Technical Testing Institute  
Ostrava-Radvanice



## 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 08 ATEX 0096X**

(4) Equipment or protective system: **Ex-protected accessories of compressed natural gas dispensers V-line 47xx.xxx/CNG series**

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

(6) Address: **Mírová 2, 579 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°

**08/0096 dated 23.03.2009**

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

**prEN 13638:2007; EN 60079-0:2004; EN 13463-1:2001; EN 1127-1:2007**

(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 IIA T3**  
**prEN 13638 : 2007**

This EC-Type Examination Certificate is valid till:

**31. 03. 2014**

Responsible person:

Date of issue: 25.03.2009

  
Dipl. Ing. Šindler Jaroslav  
Head of certification body



Number of pages: 7  
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**Physical Technical Testing Institute  
Ostrava-Radvanice**

(13)

**Schedule**

(14) **EC-Type Examination Certificate N° FTZÚ 08 ATEX 0096X**

(15) **Description of Equipment or Protective System:**

The series V-line 47xx.xxx/CNG dispensers with the electronic controlling unit and the delivery module type V-line 8690.xxx/CNG are designed for refuelling of vehicles with compressed natural gas-CNG.

The a.m. CNG dispensers make possible one-sided or double-sided contemporary CNG delivering from one's or two filling nozzles.

The a.m. CNG dispensers are constructional designed like modular unified construction. They can be designed in two variants of the refuelling hose-modulus.

a) V-line H 47xx.xxx/CNG – high construction of refuelling hose-module with feely hung refuelling hoses.

b) V-line R 47xx.xxx/CNG – low construction of refuelling hose-module with the automatic hose –pulling.

To the both sectional modifications of dispensers are connected the 8690.xxx/CNG modulus for refuelling of vehicles. The compact self-contained refuelling module type 8690.xxx/CNG is from one side linked to supporting post of the dispenser-frame construction.

The modulus CNG is possible to use at one-sided or double-sided refuelling with metering aggregate in type of construction.

The CNG electrical and electronic elements are connected with controlling electronic unit. The V-line 47xx.xxx/CNG dispensers can be alternatively equipped with tank and payment terminal (for tank and tanks cards – CA) for self-service refuelling of vehicles. Ex-protection of components is defined in the documentation list which belongs to hereof certificate:

TÚ/1069/2008 dated 30.10.2008 from  $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$

TÚ/1060/2008 dated 30.10.2008 from  $-30^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$

TÚ/1057/2008 dated 30.10.2008 from  $-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$

The determination of hazardous areas inside and outside of the dispensers is defined in accordance to EN 60079-10:2003 and prEN13638:2007. The inside of the modulus CNG spaces is defined as ZONE 1. The hose-section spaces of modulus CNG is defined as ZONE 2.

The outside of the modulus CNG spaces within 1000 mm vertically upwards above top margin case and 200 mm horizontally in all sides and down to the ground is defined as ZONE 2. The electronic counter casing imbedded on the column of hose-modulus of the dispenser is separated by vapour barriers Type 1.

The electronic counter casing is designed with degree of protection IP 67/IP 54/IP 43 according to EN 60529 – inside and outside of the casing is non-hazardous area.

The body of the refuelling modulus type V-line 8690.xxx/CNG is designed with degree of protection IP 23/ IP 67.

Responsible person:

*v.j. Šindler*

Dipl. Ing. Šindler Jaroslav  
Head of certification body



Date of issue: 25.03.2009

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Physical Technical Testing Institute  
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(14) **EC-Type Examination Certificate N° FTZÚ 08 ATEX 0096X**

(15) Description of Equipment or Protective System:

Technical data:

Measured medium:	compressed natural gas CNG
Number of filling nozzle:	1 or 2
Max. delivery pressure:	30,0 MPa
Min. delivery pressure:	7,0 Mpa
Testing pressure:	45,0 MPa
Max. capacity $Q_{\max}$ :	70 kg min <sup>-1</sup>
Min. capacity $Q_{\max}$ :	0,3 kg min <sup>-1</sup>
Min. measured quantity:	2 kg

Electrical parameters:

Power supply of controlling electronic unit:	1/N/PE AC 230 V $\pm 15\%$ ; 50 Hz; 85 VA
Power supply of mass flowmeter:	24 V DC $\pm 10\%$ ; 5 $\div$ 8 W
Power supply of ADAMAT electronic:	1/N/PE AC 230 V $\pm 15\%$ ; 50 Hz; 120 VA
Power supply of electrovalves-alternatively:	24 V DC $\pm 10\%$ ; 13 $\div$ 18 W; 230 V $\pm 10\%$ ; 13 $\div$ 18 W

Ambient temperature:

- a)  $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$  with accessories of Ex-components according to TÚ/1069/2008 dated 30.10.2008
- b)  $-30^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$  with accessories of Ex-components according to TÚ/1060/2008 dated 30.10.2008
- c)  $-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$  with accessories of Ex-components according to TÚ/1057/2008 dated 30.10.2008

Service temperature of medium:	$-40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$
Max. length of filling hose:	5 m

(16) Report No. : 08/0096 dated 23.03.2009

Responsible person:

Dipl. Ing. Šindler Jaroslav  
Head of certification body



Date of issue: 25.03.2009

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**Schedule**

(14) **EC-Type Examination Certificate N° FTZÚ 08 ATEX 0096X**

(17) Special conditions for safe use:

17.1 The series V-line 47xx.xxx/CNG dispensers, brand logo MONO, DUO or DUPLEX in case, that:

- a) are assisted CNG dispensers have to be operated by a person having adequate authorization
- b) are self-service CNG dispensers, the CNG refuelling of vehicles have to be performed by persons having adequate authorization from the manufacturer or from some organization defined by manufacturer.

17.2 The installation and operation of the series V-line 47xx.xxx/CNG dispensers have to confirm to the relevant national regulations of the users.

17.3 For ambient temperature shall be used Ex-components specified in documents:

- a)  $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$  with accessories of Ex-components  
according to TÚ/1069/2008 dated 30.10.2008
- b)  $-30^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$  with accessories of Ex-components  
according to TÚ/1060/2008 dated 30.10.2008
- c)  $-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$  with accessories of Ex-components  
according to TÚ/1057/2008 dated 30.10.2008

(18) Essential Health and Safety Requirements:

18.1 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's instruction No. MKT 003-002-2008/CZ dated III/2009.

18.2 At the installation and the operation of the series V-line 47xx.xxx/CNG dispensers have to be observed manufacturer's instruction No. MKT 003-002-2008/CZ dated III/2009.

(19) Warnings:

**„Do not open, when energized!“**

Responsible person:

Dipl. Ing. Šindler Jaroslav  
Head of certification body



Date of issue: 25.03.2009

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(14) **EC-Type Examination Certificate N° FTZÚ 08 ATEX 0096X**

(19)


LIST OF DOCUMENTATION

**Documentation:**

**Date:**

- Technical description No. 1201/2008, issue No. 1 (21 pages + 37 Annex) 30.10.2008
- Ex analysis No. TU/1077/2008
- List of Ex-components TÚ/1069/2008 for ambient temperature  $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$  with the specification of Ex-type protection and the relevant Certificate or Conformity of Declaration for electrical and non-electrical equipment and apparatus which are potential dangerous of explosion dated 30.10.2008
- List of Ex-components TÚ/1060/2008 for ambient temperature  $-30^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$  with the specification of Ex-type protection and the relevant Certificate or Conformity of Declaration for electrical and non-electrical equipment and apparatus which are potential dangerous of explosion dated 30.10.2008
- List of Ex-components TÚ/1057/2008 for ambient temperature  $-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$  with the specification of Ex-type protection and the relevant Certificate or Conformity of Declaration for electrical and non-electrical equipment and apparatus which are potential dangerous of explosion dated 30.10.2008
- Manual MKT 003-002-2008/CZ for service, maintaining and installation of V-line 47xx.xxx/CNG dispensers dated III/2009.
- Technical description No. 1159/2005 of the electronic counter casing E 360.7 –  
dated 15.03.2005/30.10.2008
- Drawings No.: 402065 25.04.2008/30.10.2008
- 449220625 08.09.2008/30.10.2008
- 429220810 29.10.2008/30.10.2008
- 44920015 10.03.2008/30.10.2008
- 419300819 28.08.2007/30.10.2008
- 419300820 28.08.2007/30.10.2008
- 402060 23.04.2008/30.10.2008
- 402062 25.04.2008/30.10.2008
- 402062/varianta 2 14.10.2008/30.10.2008
- Electrical installation of CNG dispensers:  
Drawings No. 489105867 08.03.2008/30.10.2008
- 481105873 08.03.2008/30.10.2008
- 489105961 19.08.2008/30.10.2008
- 481105965 11.08.2008/30.10.2008

Responsible person:

  
Dipl. Ing. Šindler Jaroslav  
Head of certification body



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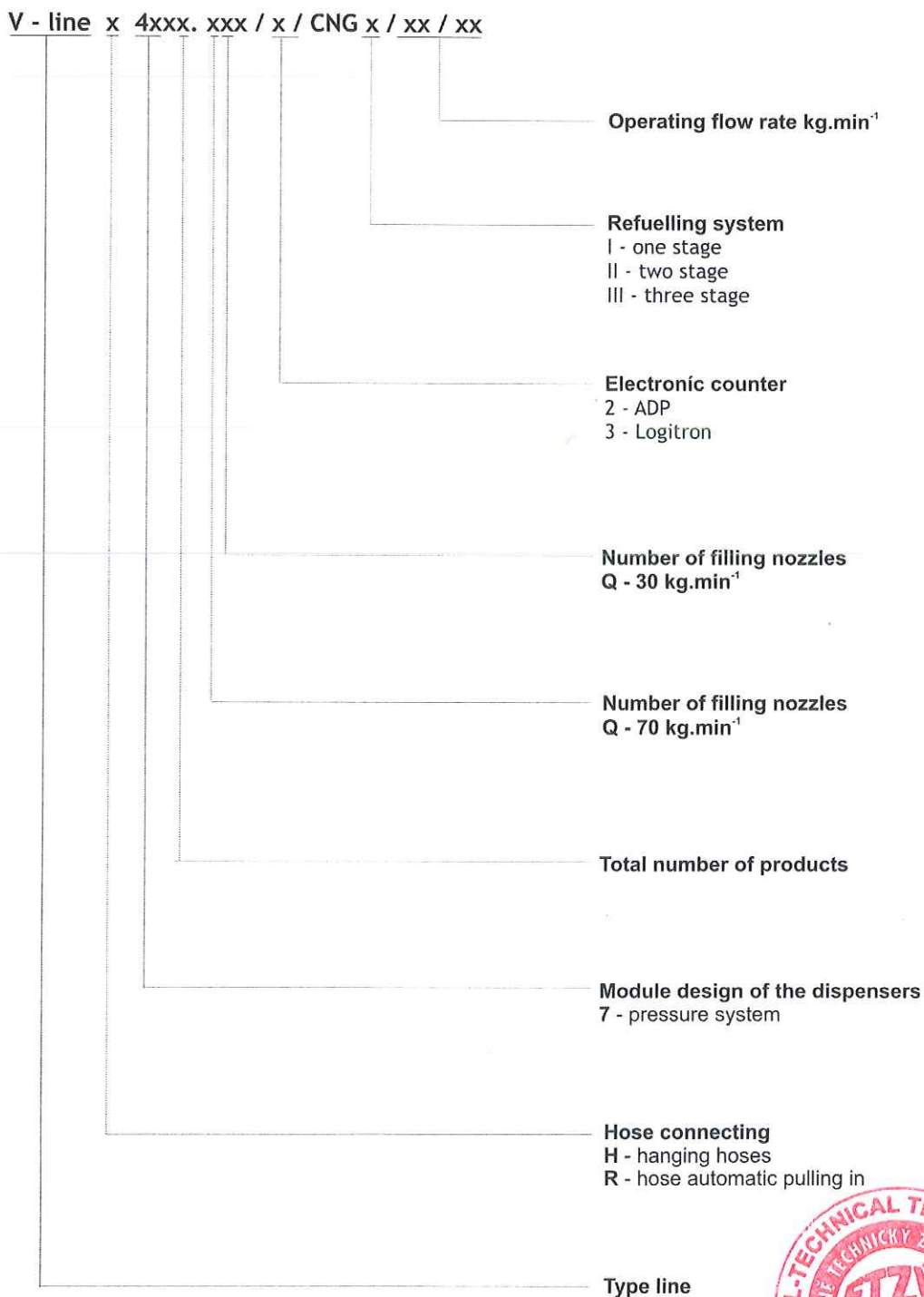




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Ostrava-Radvanice

Type key of dispensers V-line 47xx.xxx/CNG

ANNEX No. 1

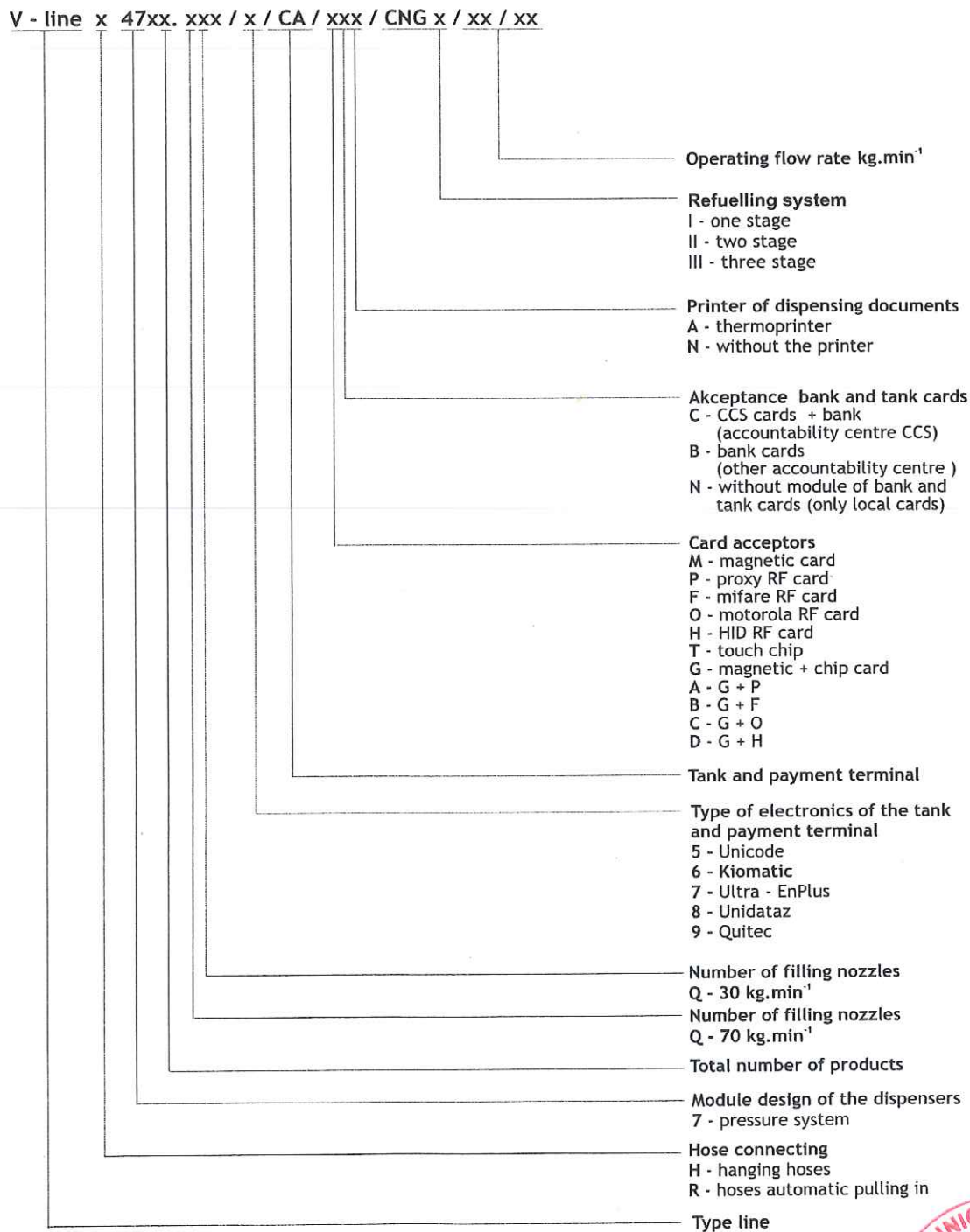




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Type key of dispensers V-line 47xx.xxx/CA/CNG

ANNEX No. 2





**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 08 ATEX 0096X**

(4) Equipment: **Ex-protected accessories of compressed natural gas dispensers  
V-line 47xx.xxx/CNG series**

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

(6) Address: **č.p. 496, 679 04 Adamov, Czech Republic**

(7) This supplement of certificate is valid for:

- modification of certified apparatus
- verification according to new standards
- 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 the market or introduce in service.

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

**EN 60079-0:2012; EN 13463-1:2009; EN 1127-1:2011**

(11) Marking of equipment shall contain symbols:

**Ex II 2G IIA T3**

(12) This type examination certificate is valid till: **14.04.2019**

Responsible person:

*Lukáš Martinák*  
Dipl. Ing. Lukáš Martinák  
Head of Certification Body



Date of issue: 14.04.2014

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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





**Physical Technical Testing Institute  
Ostrava – Radvanice**

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**Schedule**

(14)

**Supplement No. 1 to  
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0096X**

(15) Description of Equipment:

The object of this supplement is as follow:

- Recertification according to new standards.
- Prolongation of certificate validity.

Dispenser was modified. In configuration of fuel dispenser new types of equipments can be alternatively used, rest of technical parameters and construction parameters remain unchanged. The updated lists of new equipments are mentioned in documents No. TÚ/1069/2008 dated 27.02.2014, TÚ/1060/2008 dated 27.02.2014 and TÚ/1057/2008 dated 27.02.2014.

(16) Report No.: 08/0096-1

dated 14.04.2014

(17) Special conditions for safe use:

17.1 The series V-line 47xx.xxx/CNG dispensers in case, that:

- Are assisted CNG dispensers have to be operated by a person having adequate authorization.
- Are self-service CNG dispensers, the CNG refuelling of vehicles have to be performed by persons having adequate authorization from the manufacturer or from some organization defined by manufacturer.

17.2 The installation and operation of the series V-line 47xx.xxx/CNG dispensers have to confirm to the relevant national regulations of the users.

17.3 For ambient temperature shall be used Ex-components specified in documents:

- $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$  with accessories of Ex-components according to TÚ/1069/2008 dated 27.02.2014
- $-30^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$  with accessories of Ex-components according to TÚ/1060/2008 dated 27.02.2014
- $-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$  with accessories of Ex-components according to TÚ/1057/2008 dated 27.02.2014

Responsible person:



Dipl. Ing. Lukáš Martinák  
Head of Certification Body



Date of issue: 14.04.2014

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Supplement No. 1 to  
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0096X

(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.

(19) List of Documentation:

*Document No.:*

*Date:*

TÚ/1069/2008 5 pages

27.02.2014

TÚ/1060/2008 4 pages

27.02.2014

TÚ/1057/2008 4 pages

27.02.2014

481106706

27.07.2012

Responsible person:

  
Dipl. Ing. Lukáš Martinák  
Head of Certification Body



Date of issue: 14.04.2014

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