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 0069

(4) Equipment or protective system: **Liquid fuel dispenser, types: V-line 46xx.xxx; V-line 47xx.xxx**

(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°

05/0069 dated 30 June 2005

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

EN 13617-1:2004

(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

This EC-Type Examination Certificate is valid till: **30. 06. 2010**

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body

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

Date of issue: 30. 06. 2005

Number of pages: 1/5

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Physical Technical Testing Institute
Ostrava-Radvanice

(13) **Schedule**

(14) **EC-Type Examination Certificate N° FTZÚ 05 ATEX 0069**

(15) Description of Equipment:

The dispenser type series V-line 46xx.xxx – suction system of dispenser with own pump assembly for each product and type series V-line 47xx.xxx – pressure system without own pump assembly, designed for connection to ducting of petrol station, which are designed for dispensing of liquid petrol product i.e. motor petrol, oil, jet fuel, etc. (flammable liquids fire class I to IV) with filling rate from 2 to 150 $dm^3.min^{-1}$.

The fuel dispensers above mentioned type series enable one sided or double sided parallel dispensing of 1 to 5 types of fuel products.

There are possible variant of the dispenser in modification V-line H 46xx.xxx, 47xx.xxx – column (high) design of hose module with freely suspended hose or in modification V-line R 46xx.xxx, 47xx.xxx – low design of hose module with hose pulling in system.

Classification of hazardous areas inside of dispenser and outside of dispenser is prescribed in standard EN 13617-1:

Inside area of dispenser hydraulic housing **- zone 1**

Inside area of dispenser hose module **- zone 1**

Outside area of dispenser column and hydraulic housing up to 50 mm over upper edge of column and hydraulic housing and to 200 mm from upper edge of column and hydraulic housing up to the ground is classified to **- zone 2**

Electronics housing, installed on hose module column is separated by vertical vapour barrier type 1, the housing provides degree of protection IP67/IP 54/IP 43 according to EN 60529.

- inside and outside of this housing is a safe area (non-classified)

Technical parameters of the dispenser are given in annex No. 1 of the certificate.

(16) Report No. : 05/0069

(17) Special conditions for safe use: There are not defined.

(18) Essential Health and Safety Requirements:

18.1 According to Directive 94/9/EC (Government Order No. 23/2003 Coll.) Annex 2, clause 1.0.6 and manufacturer instruction for use No OÚ/003/2005/CZ, **the dispenser is not allowed to be installed in hazardous area specified according to EN 60079-10:2003** and for installation of the dispenser in petrol station are valid national regulations.

18.2 The others essential safety requirements are covered by standards mentioned in clause (9) of this certificate.

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body

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

Date of issue: 30.06.2005

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(13) **Schedule**

(14) **EC-Type Examination Certificate N° FTZÚ 05 ATEX 0069**

(19) **LIST OF DOCUMENTATION**

➢ List of approval documentation	- document No. TÚ/002/05	
➢ Technical description	- instruction No. 1160/2005	17.05.2005
➢ Instruction for use, maintenance and installation	- document No. OÚ/003/05/CZ	27.05.2005
➢ Complete dispenser assembly V-line H 46xx.xxx	– drawing No. 449 216 686	27.05.2005
➢ Zone diagram and dispenser ventilation V-line H 46xx.xxx	- drawing No.449 216 687	27.05.2005
➢ Hydraulic dispenser schema V-line H 46xx.xxx, without vapour recuperation	- drawing No.440 416 696	27.05.2005
➢ Hydraulic dispenser schema V-line H 46xx.xxx, with vapour recuperation	- drawing No.440 416 697	27.05.2005
➢ Hydraulic dispenser schema V-line H 47xx.xxx, without vapour recuperation	- drawing No.440 416 698	27.05.2005
➢ Hydraulic dispenser schema V-line H 47xx.xxx, with vapour recuperation	- drawing No. 440 416 699	27.05.2005
➢ Dispenser - assembly	- drawing No. 449 216 666	27.05.2005
	- piece list No. 449 216 666	27.05.2005
➢ Frame 3P V-line/H	- drawing No. 445 216 664	27.05.2005
	- piece list No. 445 216 664	27.05.2005
➢ Hydraulics 240H/ODS1/130	- drawing No. 445 216 561	27.05.2005
	- piece list No. 445 216 561	27.05.2005
➢ Vapour recuperation VR2-E/H/CP	- drawing No. 445 216 562	27.05.2005
	- piece list No. 445 216 562	27.05.2005
➢ El. installation of dispenser MPD	- drawing No. 489 104 754	27.05.2005
	- piece list No. 489 104 754	27.05.2005
➢ Assembly el. schema MPD	- drawing No. 481 104 755	27.05.2005
➢ Manuf. plate of dispenser	- drawing No. 440 416 825	27.05.2005
➢ Leakage pan	- drawing No. 440 216 649	27.05.2005
➢ Dispenser	- drawing No. 449 216 532	27.05.2005
	- piece list No. 449 216 532	27.05.2005
➢ Frame 2P/V-line/H	- drawing No. 445 216 456	27.05.2005
	- piece list No. 445 216 456	27.05.2005

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(13) **Schedule**

(14) **EC-Type Examination Certificate N° FTZÚ 05 ATEX 0069**

(19) **LIST OF DOCUMENTATION** - continue

➢ Hydraulics 040H/ODS1/DP	- drawing No. 445 216 527	27.05.2005
	- piece list No. 445 216 527	27.05.2005
➢ Hydraulic unit MPD AIU 50	- drawing No. 445 216 528	27.05.2005
	- piece list No. 445 216 528	27.05.2005
➢ Pumping compact	- drawing No. 459 100 510d	27.05.2005
	- piece list No. 459 400 578	27.05.2005
➢ Gauge with integrated sensor	- drawing No. 469 100 510d	27.05.2005
	- piece list No. 469 201 273	27.05.2005
➢ Hydraulic unit MPD AIU 90 PROP	- drawing No. 445 216 529	27.05.2005
	- piece list No. 415 216 529	27.05.2005
➢ Pumping compact	- drawing No. 459 201 273	27.05.2005
	- piece list No. 459 400 580	27.05.2005
➢ Vapour recuperation VR2-E/H	- drawing No. 445 216 530	27.05.2005
	- piece list No. 445 216 530	27.05.2005
➢ El. installation of dispenser MPD	- drawing No. 489 104 654	27.05.2005
	- piece list No. 489 404 676	27.05.2005
➢ Assembly el. schema MPD	- drawing No. 481 104 642	27.05.2005
➢ Assembly el. schema MPD	- drawing No. 481 104 677	27.05.2005
➢ Assembly el. schema MPD	- drawing No. 481 104 696	27.05.2005
➢ Assembly el. schema MPD	- drawing No. 481 104 642a	17.05.2005
➢ Complete dispenser assembly V-line R 46xx.xxx	- drawing No. 449 216 796	27.05.2005
➢ Zone diagram and dispenser ventilation V-line R 46xx.xxx	- drawing No. 449 216 797	27.05.2005
➢ El. installation of dispenser MPD	- drawing No. 489 104 654	17.05.2005
	- piece list No. 489 104 654	17.05.2005
➢ List of Ex components for dispenser type series V-line 46xx.xxx, 47xx.xxx (T_A = -20°C ÷ +40°C)	- document No. TÚ/1030/05/H	22.06.2005
➢ List of Ex components for dispenser type series V-line 46xx.xxx, 47xx.xxx (T_A = -20°C ÷ +50°C)	- document No. TÚ/1032/05/H	22.06.2005
➢ List of Ex components for dispenser type series V-line 46xx.xxx, 47xx.xxx (T_A = -40°C ÷ +60°C)	- document No. TÚ/1031/05/H	22.06.2005

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(13) **Schedule**

(14) **EC-Type Examination Certificate N° FTZÚ 05 ATEX 0069**

(20) **ELECTRICAL PARAMETERS**

Supply voltage	- electronics	230 V ± 15%; 50Hz; input 50 VA
	- electric motor	3x230/400 V ± 10%; 50Hz
	- vacuum pump	3x230/400 V ± 10%; 50 Hz
Electric motor output	- pump	0,55 kW; 0,75 kW; 1,1 kW
	- vacuum pump	0,18 kW; 0,37 kW

(21) **TECHNICAL PARAMETERS**

Nominal size of connection flange	DN 40 or DN 50 (according to dispenser filling rate)
Max. service pressure	0,25 MPa
Max. suction level	- 55 kPa for motor petrol
	- 85 kPa for oil
Filling rate (according to dispenser variants)	30; 40; 60; 70; 80; 130 or 150 $dm^3.min^{-1}$
Service ambient temperature	-20°C až +40°C – basic design
	-20°C až +50°C – standard design
	-40°C až +60°C – for extreme climatic condition

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

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Physical Technical Testing Institute

Ostrava-Radvanice

(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 0069

(4) Equipment: **Liquid fuel dispenser, type V-line 46xx.xxx; V-line 47xx.xxx**

(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
- Verification according to a new standard
- Change of manufacturer address

(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 requirement which the 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 13617-1:2004+A1:2009

(11) Marking of equipment shall contain symbols:

Ex II 2G IIA T3

(12) This type examination certificate is valid till: **04.11.2015**

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body

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

Date of issue: 04.11.2010

Number of pages: 2
Page: 1/2

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute.
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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 0069

(15) Description of Equipment or Protective System:

This suplement of certificate verifies alternative dispenser assembly layout and the equipment is verified according new standard EN 13617-1:2004+A1:2009. For special alternative design of dispenser the range of ambient temperatures was expanded to -30°C to +60°C.

The following new types of devices and components can be applied in the dispenser assembly layout: Terminal box GENERI, terminal box Bartec, terminal box AB controls and technology, magnetic encoders ELTOMATIC, magnetic encoder Metra Blansko, electromotors ELPROM, electromagnetic valves Danfoss, temperature sensors ZPA Nová Paka and JSP Nová Paka, flow gas measure system FAFNIR, gas sensor Bürkert Werke Gmbh & Co.KG, flowmeter GILBARCO, fuel supply hose ELAFLEX HIBY, coaxial fuel supply hose ELAFLEX HIBY, spheric cock W plus. All above mentioned alternative devices and components were separately verified for conformity with essential requirements or their relevant properties were verified after their instalation in dispenser assembly.

(16) Report No. : 05/0069/1 dated 03.11.2010

(17) Special conditions for safe use: none

(18) Essential Health and Safety Requirements: Remain unchanged

(19) LIST OF DOCUMENTATION

- List of Ex components for dispenser type series V-line 46xx.xxx, V-line 47xx.xxx (T_A -20 ÷ +40°C)	- document No. VTÚ/034/2010	20.05.2010
- List of Ex components for dispenser type series V-line 46xx.xxx, V-line 47xx.xxx (T_A -20 ÷ +50°C)	- document No. VTÚ/035/2010	20.05.2010
- List of Ex components for dispenser type series V-line 46xx.xxx, V-line 47xx.xxx (T_A -30 ÷ +60°C)	- document No.VTÚ/036/2010	20.05.2010
- List of Ex components for dispenser type series V-line 46xx.xxx, V-line 47xx.xxx (T_A -40 ÷ +60°C)	- document No.VTÚ/037/2010	20.05.2010
- Instruction for use, maintenance and instalation	- document No. OÚ/003/2005/CZ	05.2010

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body

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

Date of issue: 04.11.2010

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Physical-Technical Testing Institute

Ostrava - Radvanice

(1) Supplementary EU - Type Examination Certificate No.2

(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 0069

(4) Product: **Liquid dispenser, type V-line 46xx.xxx, V-line 47xx.xxx**

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

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

(7) This supplementary certificate extends EC - Type Examination Certificate No. FTZÚ 05 ATEX 0069 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 13617-1:2012

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

II 2G IIA T3

(12) This certificate is valid till: **18.07.2023**

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: 18.07.2018

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(13) **Schedule**

(14) # Supplementary EU - Type Examination Certificate No. 2 to FTZÚ 05 ATEX 0069

(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,
- Change of address of the manufacturer.

Technical parameters of the equipment remain unchanged.

(16) Report Number.: 05/0069/2 dated 11.06.2018

(17) Specific Conditions of Use: None

(18) Essential Health and Safety Requirements:

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

(19) Drawings and Documents:

Number	Date	Description
--	04/2018	Declaration of manufacturer
1234/2015	06/2018	Technical description with annexes
001/2018	04/2018	List of electrical and non-electrical parts
OÚ/003/2005/CZ	06/2017	Manual

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: 18.07.2018

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