



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 0185X

(4) Equipment or protective system: **Control separation element, type KLV-24-PEx;
KLV-42-PEx; KLV-115-PEx; KLV-230-PEx**

(5) Manufacturer: **TEVEL d.o.o.;**

(6) Address: **Borovniko naselje 7, 1412 Kisovec, Slovenija**

(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°

08/0185 dated October 2008

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

EN 60079-0:2006

EN 60079-18:2004

EN 60079-11:2007

(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:



IM2(M1) Ex mb [ia] I

This EC-Type Examination Certificate is valid till: **31 October 2013**

Responsible person:

Dipl. Ing. Sindler Jaroslav
Head of certification body



Date of issue: **23.10.2008**

Number of pages: 1/3



Physical Technical Testing Institute
Ostrava-Radvanice

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(14) **EC-Type Examination Certificate N° FTZÚ 01 ATEX 0185X**

(15) Description of Equipment or Protective System:

Control separation element KLV-xxx-PEx is designed for transfer and galvanic separation of control signals from non intrinsic circuits and intrinsically safe circuits. Operation of KLV-xxx-PEx is based on input voltage measuring on

intrinsic safe side and contemporary controls of two relays on non intrinsic safe side of device.

On this input terminals we can connect:

- START/STOP key; - START/STOP switch; - inductive proximity sensor (NAMUR); - thermostat
Control separation element enclosure is made of glass-fiber reinforced polyester, separately certified acc to ATEX.(IBExU 01 ATEX 1042U).

Two PCB Platina A and Platina B are mounted inside enclosure.

Platina A which also contains the elements for galvanic separation and AC/DC voltage transformation on values Vc and Vcc which are used for proper operation of microprocesor, LED indicators and relays.

Platina A also contains the elements for current and voltage limitation on intrinsic safe side if device.

PCB Platina B is mounted directly above Platina A and it contains elements like light indicators (LED diodes) and relays output terminals.

Platina A and Platina B are completely encapsulated with exceptions like LED indicator and relays output terminals which are partly encapsulated.

The two power cable and six relay output cables are lead inside of enclosure through line bushing M24x1,5/8x1,0mm² on non intrinsic safe side of device.

There on intrinsic safe side of device a cable can be connected through cable gland SKINDICHT SHZ-M-XL.

Enclosure design for control separation element KLV-XXX-PEx enable direct mounting on Exd or Exe type of distribution enclosure, but it is necessarily to assure extra mechanical shield around KLV-XXX-PEx.

Technical specification:

Type:	KLV-24-PEx	KLV-42-PEx	KLV-115-PEx	KLV-230-PEx
Voltage supply:	24 VAC	42 VAC	115 VAC	230 VAC
Current:	30,0 mA	30,0 mA	30,0 mA	30,0 mA

Output parameters :

Terminals 12 – 10:

Uo = 8,61 V; Io = 11,8 mA; Po = 24,1 mW Co = 15µF; Lo = 20 mH

Terminals 12-11:

Uo = 8,61 V; Io = 4,6 mA; Po = 9,92 mW Co = 15µF; Lo = 20 mH

(16) Report No. : 08 / 0185 ... 29 pages

(17) Special conditions for safe use:

17.1 The subsidiary protective cover has to be used because of low mechanical endurance of the enclosure

17.2 Control separation element has to be threaded in to a housing protected against explosion. (Ex d or Ex e protection)

(18) Essential Health and Safety Requirements:

Covered by standards mentioned in (9) of this document

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 23.10.2008

Number of pages: 2/3



Physical Technical Testing Institute
Ostrava-Radvanice

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(14) **EC-Type Examination Certificate N° FTZÚ 01 ATEX 0185X**

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LIST OF DOCUMENTATION

Technical documentations:

- | | | |
|--|-----|----------------|
| ▪ Technical documentation KLV-XXX-PEX (October 2008) | ... | ID doc.:340000 |
| ▪ List of technical documentation KLV-XXX-PEX | ... | ID doc.:340001 |

Plans and drawings:

- | | | |
|---|-----|----------------|
| ▪ Plan for encloser drilling KLV-XXX-PEX | ... | ID dok.:340010 |
| ▪ Transformer EI30/12,5 (24/13V) | ... | ID dok.:340011 |
| ▪ Transformer EI30/12,5 (42/13V) | ... | ID dok.:340012 |
| ▪ Transformer EI30/12,5 (115/13V) | ... | ID dok.:340013 |
| ▪ Transformer EI30/12,5 (230/13V) | ... | ID dok.:340014 |
| ▪ Encapsulation plan for KLV-XXX-PEX | ... | ID dok.:340015 |
| ▪ External adhesive plate for KLV-XXX-Pex | ... | ID dok.:340016 |
| ▪ Internal adhesive sticker for KLV-XXX-Pex | ... | ID dok.:340017 |
| ▪ Marking label | ... | ID dok.:340018 |
| ▪ Plan for line bushing M24x1,5 / 8x1,0mm | ... | ID dok.:340019 |

Electric scheme and PCB:

- | | | |
|--|-----|----------------|
| ▪ Electrical scheme KLV-XXX-PEX Platina A V1.0 | ... | ID dok.:340030 |
| ▪ PCB for KLV-XXX-PEX Platina A V1.0 | ... | ID dok.:340031 |
| ▪ Electrical scheme KLV-XXX-PEX Platina B V1.0 | ... | ID dok.:340032 |
| ▪ PCB for KLV-XXX-PEX Platina B V1.0 | ... | ID dok.:340033 |

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 23.10.2008

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Physical Technical Testing Institute
Ostrava – Radvanice



**Supplement No. 1 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 08 ATEX 0185X

(4) Equipment: **Control separation element, type KLV-24-PEx; KLV-42-PEx; KLV-115-PEx;
KLV-230-PEx**

(5) Manufacturer: **TEVEL, d.o.o.**

(6) Address: **Borovniško naselje 7, 1412 Kisovec, Slovenia**


(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, 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.

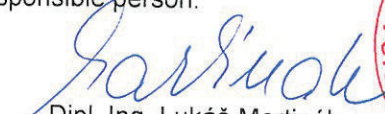
(10) Safety requirements of modified parts were fulfilled by satisfying the following standards:
EN 60079-0:2006 EN 60079-18:2004 EN 60079-11:2007

(11) Marking of equipment shall contain symbols:

 **I M2(M1) Ex mb [ia] I**

(12) This type examination certificate is valid till: **23.07.2015**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 23.01.2015

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Physical Technical Testing Institute
Ostrava – Radvanice

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(14) Supplement No. 1 to
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0185X

(15) Description of Equipment or Protective System:

The object of this supplement is prolongation of certificate validity for period 6 months.

Technical parameters and construction parameters remain unchanged.

(16) Report No.: 08/0185-1


dated 23.01.2015

(17) Special conditions for safe use: Remain unchanged.

(18) Essential Health and Safety Requirements: Remain unchanged.

(19) List of Documentation: --

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 23.01.2015

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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 08 ATEX 0185X

(4) Equipment: **Control separation element, type KLV-24-PEx; KLV-42-PEx; KLV-115-PEx;
KLV-230-PEx**

(4) Manufacturer: **TEVEL, d.o.o.**

(5) Address: **Borovniško naselje 7, 1412 Kisovec, Slovenia**

(6) This supplement of certificate is valid for: - verification according to new standard
- prolongation of certificate validity

(7) 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.

(8) 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.

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

EN 60079-0:2012; EN 60079-18:2009; EN 60079-11:2012

(10) Marking of equipment shall contain symbols:

 **I M2(M1) Ex mb [ia Ma] I Mb**

(11) This type examination certificate is valid till: **23.07.2020**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 23.07.2015

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**Physical Technical Testing Institute
Ostrava – Radvanice**

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Schedule

(14)

**Supplement No. 2 to
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0185X**

(15) Description of Equipment or Protective System:

Technical parameters and construction parameters remain unchanged.

The object of this supplement is as follow:

- Verification according to the new standards
- Prolongation of certificate validity.

(16) Report No.: 08/0185-2

dated 23.07.2015

(17) Special conditions for safe use:

- 17.1 The subsidiary protective cover has to be used of low mechanical endurance of the enclosure.
- 17.2 Control separation element has to be threaded in to a housing protected against explosion.
(Ex d or Ex e protection).
- 17.3 The equipment shall be protected to chemical agents.

(18) Essential Health and Safety Requirements:

They are included in standards, which are mentioned in clause (10) of this supplement to certificate.
The product was approved in accordance with above mentioned standards.

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 23.07.2015

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(14)

**Supplement No. 2 to
EC-Type Examination Certificate N° FTZÚ 08 ATEX 0185X**

(19) List of Documentation:

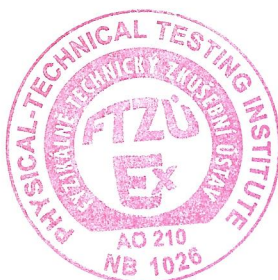
Document No.:

Date:

340000	05/2015
340030	07.05.2015
340031	21.10.2008
340032	07.05.2015
340033	21.10.2008
340009	05/2015
340010	05/2015
340011	05.2015
340012	05/2015
340013	05/2015
340014	05/2015
340015	05/2015
340016	05/2015
340017	05/2015
340018	07/2015
340019	05/2015
User manual KLV-PEx	07/2015

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