



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 0184X

(4) Equipment or protective system: **Data separation element, type PLV-24-PEx;
PLV-42-PEx; PLV-115-PEx; PLV-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°

08/0184 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:

Ex IM2(M1) Ex mb [ia] I

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

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 23.10.2008

Number of pages: 1/3



**Physical Technical Testing Institute
Ostrava-Radvanice**

(13)

Schedule

(14) **EC-Type Examination Certificate N° FTZÚ 01 ATEX 0184X**

(15) Description of Equipment or Protective System:

Data separation element PLV-xxx-PEx is designed for transfer and galvanic separation between data signals from non intrinsic circuits and intrinsic circuits. Operation of PLV-xxx-PEx is based on an activation of relay output on intrinsic safe side in case of power supply presence at the non intrinsic safe side of device.

Data separation element enclosure is made of glass-fiber reinforced polyester, separately certified acc to ATEX.(IBExU 01 ATEX 1042U).

The PCB platina "A" and "B" are installed inside in the enclosure. PCB platina "A" contains the elements for galvanic separation and voltage transformation and also the elements for current and voltage limitation on the intrinsic safe side of device.

Platina "B" contains elements like green and yellow LED diodes, output terminals and BCD switch to set a proper time delay of relay activation. Also this circuits are intrinsically safe.

Both PCB are encapsulated with exception of LED diodes, BCD switch and terminals installed in intrinsically safe circuit are partly encapsulated.

The power cables are lead inside of the enclosure through line bushing M24x1,5, the intrinsic safe output is made through cable gland SKINDICHT SHZ-M-XL.

Technical specification:

Type:	PLV-24-PEx	PLV-42-PEx	PLV-115-PEx	PLV-230-PEx
Voltage supply:	24 VAC	42 VAC	115 VAC	230 VAC
Current:	45,0 mA	45,0 mA	45,0 mA	45,0 mA
Input parameters :	$U_i \leq 30 \text{ V};$	$I_i \leq 0,66 \text{ A};$	$P_i \leq 5,0 \text{ W}$	$C_i = 0; L_i = 0$

(16) Report No. : 08/ 0184 ... 28 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 Data 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

(13)

Schedule

(14) EC-Type Examination Certificate N° FTZÚ 01 ATEX 0184X

(19)

LIST OF DOCUMENTATION

Technical documentations:

- | | | |
|--|-----|----------------|
| ▪ Technical documentation PLV-XXX-PEx (October 2008) | ... | ID doc.:341000 |
| ▪ List of technical documentation PLV-XXX-PEx | ... | ID doc.:341001 |

Plans and drawings:

- | | | |
|---|-----|----------------|
| ▪ Plan for enclosure drilling PLV | ... | ID dok.:341010 |
| ▪ Transformer EI30/12,5 (24/13V) | ... | ID dok.:341011 |
| ▪ Transformer EI30/12,5 (42/13V) | ... | ID dok.:341012 |
| ▪ Transformer EI30/12,5 (115/13V) | ... | ID dok.:341013 |
| ▪ Transformer EI30/12,5 (230/13V) | ... | ID dok.:341014 |
| ▪ Encapsulation plan for PLV-XXX-PEx | ... | ID dok.:341015 |
| ▪ External adhesive plate for PLV-XXX-Pex | ... | ID dok.:341016 |
| ▪ Internal adhesive sticker for PLV-XXX-Pex | ... | ID dok.:341017 |
| ▪ Marking label | ... | ID dok.:341018 |
| ▪ Plan for line bushing M24x1,5 / 2x1,0mm | ... | ID dok.:341019 |

Electric scheme and PCB:

- | | | |
|--|-----|----------------|
| ▪ Electrical scheme PLV-XXX-PEx Platina A V1.0 | ... | ID dok.:341030 |
| ▪ PCB for PLV-XXX-PEx Platina A V1.0 | ... | ID dok.:341031 |
| ▪ Electrical scheme PLV-XXX-PEx Platina B V1.0 | ... | ID dok.:341032 |
| ▪ PCB for PLV-XXX-PEx Platina B V1.0 | ... | ID dok.:341033 |

Responsible person:


Dipl. Ing. Šindler Jaroslav

Head of certification body



Date of issue: 23.10.2008

Number of pages: 3/3

This certificate is granted subject to the general conditions of the Physical Technical Testing Institute.
This certificate may only be reproduced in its entirety and without any change, schedule included.