Physical Technical Testing Institute

Ostrava-Radvanice

Type Examination Certificate

(1)

(2) **Equipment Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

(3) Type Examination Certificate Number:

FTZÚ 06 ATEX 0058

(4) Equipment: **Dischcarge lamp luminaire type K-2-N and K-3-N**

(5) Manufacturer: **Ing. L.Vyrtych – Elektrotechnický závod**

(6) Address: **294 06 Březno 114, 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 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 Category 2 equipment, which is intended for use in potentially explosive atmospheres given in Annex II to the Council Directive 94/9/EC.

The examination and test results are recorded in confidential Report N°

06/0058 dated 29 May 2006

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

EN 50014+A1+A2:1997; EN 50021:1999; EN 60281-1-1:1998

(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 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 3GD EEx nA II T3 T 166°C

This Type Examination Certificate is valid till: **31.05.2011**

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. OSTRAVA-RADVANICE

Date of issue: 30.05.2006

Number of pages: 3
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Physical Technical Testing Institute

Ostrava-Radvanice

(13) **Schedule**

(14) # Type Examination Certificate N° FTZÚ 06 ATEX 0058

(15) Description of Equipment:

The discharge luminaire type K-2-N and K-3-N consists of two parts of the enclosure, which has a degree of protection IP 65. Body of the luminaire and glass light transmitting cover are mutually tighten through silicone gasket. Four steel screws and two suspensions are used for their fastening. The own enclosure body and luminaire cover are moulded from aluminium alloy and have a shadow backing paint surface treatment. The luminaire enclosure is separated into two parts – lighting part, in which is installed lampholder type E40 with diffusion reflector from polished aluminium sheet and connection part in which are installed connection terminal WAGO 293, inductance ballast TRIDONIC OGLS, ignitor IZX and capacitor DNA. The luminaire has a fastening strap, allowing angular setting of luminaire. A two cable glands M20x1,5 are used for connecting of the cables.

Basic technical data:

Type	K – 2 – N		K – 3 – N	
Nominal Voltage Un	230 V / 50 Hz			
Light source	Sodium discharge lamp	Metal halide discharge lamp	Sodium discharge lamp	Metal halide discharge lamp
	150 W; 250 W		400 W	
Temperature class	T3			
Max. Surface Temperature	166 °C			

(16) Report No.: 06/0058

(17) Special conditions for safe use: none

(18) Essential Health and Safety Requirements:

Covered by standards mentioned in (9) of this certificate.

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. OSTRAVA-RADVANICE

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Ostrava-Radvanice

(13) **Schedule**

(14) **Type Examination Certificate N° FTZÚ 06 ATEX 0058**

(19) **LIST OF DOCUMENTATION**

➢ Technical description, 3 sheets		20.02.2006
➢ Drawings No.	4508 – 5 – 97 – 1	22.02.2006
	4510 – 5 – 97 – 1	22.02.2006
	4512 – 5 – 97 – 1	22.02.2006
	4514 – 5 – 97 – 1	22.02.2006
➢ Plate, 5 sheets		22.02.2006
➢ Dimension sketch	K – 2 – N	22.02.2006
	K – 3 – N	22.02.2006
➢ Technological order of installation, 3 sheets		20.02.2006
➢ Technical condition of installation and maintenance		22.02.2006
➢ Data sheet of gasket, 3 sheets		--
➢ Test report No. VI 57/2004, 15 sheets		18.01.2005

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Physical Technical Testing Institute

Ostrava-Radvanice

(1) # Supplement No. 1 to Type Examination Certificate

(2) **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

(3) Type Examination Certificate Number:

FTZÚ 06 ATEX 0058

(4) Equipment or protective system: **Discharge lamp luminaire type K-3-N**

(5) Manufacturer : **Ing.L.Vyrtych – Elektrotechnický závod**

(6) Address: **298 06 Březno 114, Czech Republic**

(7) This supplement of certificate is valid for: - modification of certified apparatus

(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 another requirement, which manufacturer shall fulfil before products are place on market or introduce in service.

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

EN 50014+A1+A2:1997 EN 50021:1999 EN 50281-1-1:1998

(11) Marking of equipment shall contain symbols:

II 3GD EEx nA II T3-T4 T 166°C; T 128°C

(12) This type examination certificate is valid till: **31.05.2011**

Responsible person:

Dipl. Ing. Šindler Jaroslav

Head of certification body

Date of issue: 30.06.2006

Number of pages: 2

Page: 1/2

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Physical Technical Testing Institute

Ostrava-Radvanice

(13) **Schedule**

(14) # Supplement No. 1 to Type Examination Certificate N° FTZÚ 06 ATEX 0058

(15) Description of Equipment or Protective System:

A type K-3-N discharge lamp was modified for use by other light source installed inside of luminaires – sodium discharge lamp or metal halide discharge lamp 250W/230V/50Hz, when this light source is used, than change temperature class by up to T4 and max. cover temperature by up to T 128°C. This modification has no influence for construction and safe use of luminaire.

Basic data:

Type	K – 2 – N		K – 3 – N			
Nominal Voltage Un	230 V / 50 Hz					
Light source	Sodium discharge lamp	Metal halide discharge lamp	Sodium discharge lamp		Metal halide discharge lamp	
	150 W; 250 W		400 W	250W	400W	250W
Temperature class	T3		T3	T4	T3	T4
Max. Surface Temperature [°C]	166		166	128	166	128

(16) Report No. : 06/0058-d1 29.06.2006

(17) Special conditions for safe use: none

(18) Essential Health and Safety Requirements:

Covered by standards mentioned in (10) of this supplement to certificate.

(19) List of documentation:

- Technical description 23.06.2006
- Technical condition of installation and maintenance 23.06.2006

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body

Date of issue: 30.06.2006

Number of pages: 2
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Physical Technical Testing Institute

Ostrava-Radvanice

(1) # Supplement No. 2 to Type Examination Certificate

(2) **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

(3) Type Examination Certificate Number:

FTZÚ 06 ATEX 0058

(4) Equipment or protective system: **Discharge lamp type K-2-N and K-3-N**

(5) Manufacturer: **VYRTYCH a.s.**

(6) Address: **Židněves 116, 298 06 Březno, Czech Republic**

(7) This supplement of certificate is valid for:
- Verification according to new standards
- Prolongation of certificate validity
- Change of the name and adress of the producer

(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 another requirements, which manufacturer shall fulfil before products are place on market or introduce in service.

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

EN 60079-15:2005; EN 61241-0:2006; EN 61241-1:2004

(11) Marking of equipment shall contain symbols:

⟨Ex⟩ II 3GD Ex nA tD A II T3-T4 $T_{max.surface}$-see below (15)

(12) This type examination certificate is valid till: **30.09.2013**

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, S.P. · OSTRAVA-RADVANICE

Date of issue: 12.09.2008

Number of pages: 2
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Physical Technical Testing Institute
Ostrava-Radvanice

(13) **Schedule**

(14) **Supplement No. 2 to**
Type Examination Certificate N° FTZÚ 06 ATEX 0058

(15) Description of Equipment or Protective System:

1) The types K-2-N and K-3-N discharge lamps are recertified according to standards EN 60079-15:2005; EN 61241-0:2005 and EN 61241-1:2004. There on the apparatus are not made any constructional changes in comparison to the certified model.
2) At the producer was made change of the name and adress from Ing. L. Vyrtych – Elektrotechnický závod, 294 06 Březno 114 to VYRTYCH a.s., Židněves 116, 294 06 Březno, Czech Republic.

Basic technical data:

Degree of protection: IP 65

Ambient temperature Ta: -20°C to +40°C

Type	K – 2 – N		K – 3 – N			
Nominal Voltage Un	230 V / 50 Hz					
Light source	Sodium discharge lamp	Metal halide discharge lamp	Sodium discharge lamp		Metal halide discharge lamp	
	150 W; 250 W		400 W	250W	400W	250W
Temperature class	T3		T3	T4	T3	T4
Max. surface temperature [°C]	166		166	128	166	128

(16) Report No. : 06/0058-d2 11.09.2008

(17) Special conditions for safe use: none

(18) Essential Health and Safety Requirements:
Covered by standards mentioned in (10) of this supplement to certificate.

(19) List of documentation:

- Technical description: K-2-N, K-3-N 04.04.2008
- Technical condition of installation: K-2-N, K-3-N 04/2008
- Plate: 04/2008

Responsible person:

Dipl. Ing. Sindler Jaroslav
Head of certification body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. FTZÚ Ex OSTRAVA-RADVANICE

Date of issue: 12.09.2008

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(1)

Supplement No. 3 to Type Examination Certificate

(2) **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

(3) Type Examination Certificate Number:

FTZÚ 06 ATEX 0058X

(4) Equipment: **Discharge lamp type K-2-N and K-3-N**

(5) Manufacturer: **VYRTYCH a.s.**

(6) Address: **Bělehradská 314/18, 140 00 Praha 4, Czech Republic**

(7) This supplement of certificate is valid for:
- modification of certified apparatus
- verification according to new standards
- prolongation of certificate validity
- change of the address of the producer

(8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, a 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 requirement which manufacturer shall fulfil before products are placed on the market or introduce in service.

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

EN 60079-0:2012; EN 60079-15:2010; EN 60079-31:2009

(11) Marking of equipment shall contain symbols:

II 3G Ex nA IIC T1 Gc

II 3D Ex tc IIIC T 181°C Dc

(12) This type examination certificate is valid till: **30.11.2018**

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of certification body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. OSTRAVA-RADVANICE

Date of issue: 29.11.2013

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(13) **Schedule**

(14) # Supplement No. 3 to Type Examination Certificate N° FTZÚ 06 ATEX 0058X

(15) Description of Equipment or Protective System:

The modification of discharge lamp consists of change of lighting source lampholders type E40 and in using of pulse ignitors with cut-out type LSI-400S T20 and ZRM 4,5-ES/C.

The discharge lamps are recertified according to standards EN 60079-0:2012; EN 60079-15:2010 and EN 60079-31:2009.

At the producer was made change of the address from Židněves 116, 294 06 Březno to Bělehradská 314/18 Praha 4, Czech Republic.

Basic technical data:

Rated voltage: 230V/50Hz

Light sources: 1x 150W or 250W – high pressure sodium vapour or metal-halide lamp for type K-2-N;
1x 250W or 400W - high pressure sodium vapour or metal-halide lamp for type K-3-N.

Degree of protection: IP 65

(16) Report No. : 06/0058-3 dated: 28.11.2013

(17) Special conditions for safe use:

17.1 Cable glands and plugs shall be match the requirements of degree of protection IP 65 and type of Ex- protection mentioned in (11) of this supplement to certificate.

(18) Essential Health and Safety Requirements:

18.1 Covered by standards mentioned in (10) of this supplement to certificate.

Responsible person:

Dipl. Ing.Lukáš Martinák
Head of certification body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. OSTRAVA-RADVANICE

Date of issue: 29.11.2013

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(13) **Schedule**

(14) # Supplement No. 3 to Type Examination Certificate N° FTZÚ 06 ATEX 0058X

(19) List of documentation:

Title	*Number*	*Version*	*Date*	*Sheets*
Technical description		03	16.8.2013	3
Technical condition of installation			16.8.2013	2
Drawings No.:	Configuration K-N		21.8.2013	
	Labels K-N		07.9.2012	2

Responsible person:

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. OSTRAVA-RADVANICE

Date of issue: 29.11.2013

Dipl. Ing.Lukáš Martinák
Head of certification body

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