



(1) **EU-TYPE EXAMINATION CERTIFICATE**
(Translation)

(2) Equipment or Protective Systems Intended for Use in
Potentially Explosive Atmospheres - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

PTB 13 ATEX 2004

Issue: 02

(4) Product: Linear luminaire for LED-module type 6001/.. and type 6001/2.. and
Linear luminaire for fluorescent lamps type 6001/5..

(5) Manufacturer: R. STAHL Schaltgeräte GmbH

(6) Address: Am Bahnhof 30, 74638 Waldenburg, Germany

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product 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.

The examination and test results are recorded in the confidential Test Report PTB Ex 18-27015.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012+A11:2013 EN 60079-7:2015 EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

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

 **II 2 G Ex db eb IIC T4 Gb**  **II 2 D Ex tb IIIC T80°C Db**

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, May 31, 2018

Dr.-Ing. F. Lienesch
Direktor und Professor

(13) **SCHEDULE**

(14) **EU-Type Examination Certificate Number PTB 13 ATEX 2004, Issue: 02**

(15) Description of Product

Linear luminaire type 6001/... is an explosion-protected electrical equipment in types of protection „increased safety“ („e“) and „dust ignition protection by enclosure“ („tb“). It is used for illuminating business and storage premises in gas explosion hazardous areas Zone 1 and 2 and areas that are subject to dust explosion hazard, Zone 21 and 22.

The luminaire essentially consists of a polyester enclosure with translucent polycarbonate cover, a seal, the cable glands and the built-in components.

In the versions 6001/1. or 6001/2., LEDs are used. Version 6001/5.. is a luminaire with lamp holders for fluorescent lamps with base G13 (2-pin).

The luminaires are also suitable for connection to emergency power supplies, i.e. spare voltage sources like group or central battery systems, etc., pursuant to EN 50127 (VDE 0108 part 100).

Equipping depends on the type of luminaire:

Fluorescent lamps T8, \varnothing 26 mm to IEC 60081 with base G 13

Fluorescent lamps T8, \varnothing 26 mm to ANSI 078.81 with base G 13

Fluorescent lamps T8, $\varnothing \leq 38$ mm to IEC 60081 with base G13 (AURA Thermo Long Life)

LEDs (Lambertian radiation characteristics; operation with 350 mA)

Ambient temperature range:

The maximum permissible ambient temperature for the luminaire depends on the equipped the components that are used and the load on the through wiring.

Technical data:

Luminaire type	6001/1; 6001/2
Input power/ number of LEDs	28 W/ 24 LEDs (6001/.1.) 52 W/ 48 LEDs (6001/.8.)
Temperature class	T4
maximum surface temperature (t_b)	80 °C

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LED Control gear	6045/111-11.	
Control device	without	6048/1
Nominal input voltage	110 ... 240 V AC 110 ... 250 V DC	220 ... 240 V AC 200 ... 250 V DC
Input voltage range	99 ... 264 V AC 99 ... 275 V DC	198 ... 264 V AC 180 ... 275 V DC
Line frequency (AC)	50 ... 60 Hz	50 ... 60 Hz
Through wiring	three wires loaded with $I \leq 16$ A (2,5 mm ² / 4 mm ²) (see restrictions within the ambient temperature range)	
Ambient temperature range (type 6001/1...)	-30 ... +50 °C -30 ... +60 °C ¹⁾	-20 ... +50 °C -20 ... +60 °C ¹⁾
Ambient temperature range (type 6001/2...)	-40 ... +50 °C -40 ... +60 °C ¹⁾	

¹⁾ with through wiring, three wires loaded with $I \leq 10$ A (2,5/ 4 mm²)

Luminaire type	6001/52.			
Lamp	IEC 60081			
Lamp power	2 x 18 W			
Temperature class	T4			
maximum surface temperature (t _b)	80 °C			
Through wiring	three wires loaded with $I \leq 16$ A (2,5 mm ²) or $I \leq 20$ A (4 mm ²) (see restrictions within the ambient temperature range)			
Control gear	6042/2.	6042/92.	6042/14.	6042/91.
Line frequency (AC)	50 ... 60 Hz		50 ... 60 Hz	50 ... 60 Hz
Nominal input voltage	220 ... 240 V AC 196 ... 240 V DC	220 ... 240 V AC 196 ... 246 V DC	110 ... 240 V AC 116 ... 240 V DC	
Input voltage range	198 ... 264 V AC 176 ... 264 V DC	198 ... 264 V AC 176 ... 270 V DC	99 ... 264 V AC 104 ... 264 V DC	
Ambient temperature range	-30 ... +50 °C -30 ... +55 °C ¹⁾ -30 ... +60 °C ³⁾	-30 ... +50 °C -30 ... +55 °C ²⁾ -30 ... +60 °C ³⁾	-30 ... +50 °C -30 ... +55 °C ²⁾	-30 ... +40 °C -30 ... +45 °C ²⁾

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Deviations in variations with control device 6048/1	
Nominal input voltage	220 ... 240 V AC 196 ... 240 V DC
Input voltage range	198 ... 264 V AC 176 ... 264 V DC
Ambient temperature range	- 20 °C

- 1) with through wiring, three wires loaded with $I \leq 10$ A (2,5/ 4 mm²)
 2) with through wiring, three wires loaded with $I \leq 8$ A (2,5 mm²) or $I \leq 10$ A (4 mm²)
 3) with through wiring, three wires loaded with $I \leq 4$ A (2,5/ 4 mm²)

Luminaire type	6001/54.			
Lamp	IEC 60081			
Lamp power	2 x 36 W			
Temperature class	T4			
maximum surface temperature (t_b)	80 °C			
Through wiring	three wires loaded with $I \leq 16$ A (2,5 mm ²) or $I \leq 20$ A (4 mm ²) (see restrictions within the ambient temperature range)			
Control gear	6042/2.	6042/94.	6042/14.	6042/98.
Line frequency (AC)	50 ... 60 Hz		50 ... 60 Hz	50 ... 60 Hz
Nominal input voltage	220 ... 240 V AC 196 ... 240 V DC		220 ... 240 V AC 196 ... 246 V DC	110 ... 240 V AC 116 ... 240 V DC
Input voltage range	198 ... 264 V AC 176 ... 264 V DC		198 ... 264 V AC 176 ... 270 V DC	99 ... 264 V AC 104 ... 264 V DC
Ambient temperature range	-30 ... +50 °C -30 ... +55 °C ¹⁾	-30 ... +50 °C -30 ... +55 °C ²⁾	-30 ... +50 °C -30 ... +55 °C ²⁾	-30 ... +40 °C -30 ... +45 °C ³⁾

Deviations in variations with control device 6048/1

Nominal input voltage	220 ... 240 V AC 196 ... 240 V DC
Input voltage range	198 ... 264 V AC 176 ... 264 V DC
Ambient temperature range	- 20 °C

- 1) with through wiring, three wires loaded with $I \leq 10$ A (2,5/ 4 mm²)
 2) with through wiring, three wires loaded with $I \leq 8$ A (2,5 mm²) or $I \leq 10$ A (4 mm²)
 3) with through wiring, three wires loaded with $I \leq 8$ A (2,5/ 4 mm²)

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Luminaire type	6001/53.	6001/55.	6001/57.	6001/56.
Lamp	ANSI C78.81			IEC 60081
Lamp power	2 x 17 W	2 x 32 W	2 x 40 W	2 x 58 W
Temperature class	T4			
maximum surface temperature (t_b)	80 °C			
Through wiring	three wires loaded with $I \leq 16$ A (2,5 mm ²) or $I \leq 20$ A (4 mm ²) (see restrictions within the ambient temperature range)			
Control gear	6042/93.	6042/95.	6042/97.	6042/96.
Line frequency (AC)	50 ... 60 Hz			50 ... 60 Hz
Nominal input voltage	120 ... 277 V AC 125 ... 267 V DC			220 ... 240 V AC 196 ... 264 V DC
Input voltage range	108 ... 305 V AC 113 ... 294 V DC			99 ... 264 V AC 104 ... 264 V DC
Ambient temperature range	-30 ... +40 °C	-30 ... +40 °C	-20 ... +40 °C	-20 ... +50 °C -20 ... +55 °C ¹⁾
<i>Deviations in variations with control device 6048/1</i>				
Nominal input voltage	220 ... 240 V AC 196 ... 240 V DC			
Input voltage range	198 ... 264 V AC 176 ... 264 V DC			
Ambient temperature range	- 20 °C			

¹⁾ with through wiring, three wires loaded with $I \leq 8$ A (2,5 mm²) or $I \leq 10$ A (4 mm²)

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(17) Specific conditions of use

None

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, May 31, 2018

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Direktor und Professor