



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx PTB 13.0033 issue No.:0 Certificate history: \_\_\_\_\_

Status: **Current**

Date of Issue: **2013-12-13** Page 1 of 4

Applicant: **R. STAHL Schaltgeräte GmbH**  
Am Bahnhof 30, 74638 Waldenburg  
Germany

Electrical Apparatus: **Light fitting for fluorescent lamps type series 6006/5**  
Optional accessory:

Type of Protection: **Flameproof Enclosures "d", Increased Safety "e", Protection by Enclosure "t"**

Marking: Ex d e IIC T4 Gb and Ex tb IIIC T80 °C Db or  
Ex db eb IIC T4 and Ex tb IIIC T80 °C

Approved for issue on behalf of the IECEx  
Certification Body:

Dr.-Ing. U. Johannsmeyer

Position:

Head of department 3.6 "Explosion Protection in Sensor  
Technology and Instrumentation"

Signature:  
(for printed version)

\_\_\_\_\_

Date:

\_\_\_\_\_

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**Physikalisch-Technische Bundesanstalt (PTB)**  
Bundesallee 100  
38116 Braunschweig  
Germany





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Issue No.: 0

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Manufacturer: **R. STAHL Schaltgeräte GmbH**  
Am Bahnhof 30, 74638 Waldenburg  
**Germany**

Additional Manufacturing location  
(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

#### STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

**IEC 60079-0 : 2011** Explosive atmospheres - Part 0: General requirements

Edition: 6.0

**IEC 60079-31 : 2008** Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'

Edition: 1

**IEC 60079-7 : 2006-07** Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition: 4

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

#### TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

Test Report:

[DE/PTB/ExTR13.0047/00](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/03](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The light fitting of type 6006/5.-..... is an explosion-protected light fitting for use in Zone 1, Zone 2, Zone 21 and Zone 22. It is available for wall, ceiling or pole mounting. The light fitting consists of an enclosure made of polyester resin and a light-transmitting protective cover made of polycarbonate. The joint surface between the enclosure and the cover is fitted with a seal, thus making it water- and dust-tight.

The series 6006 light fitting is available in the following versions: single and double lamp 18 W (IEC 60081) or 17 W (ANSI C78.81) single and double lamp 36 W (IEC 60081) or 32 W (ANSI C78.81) single and double lamp 58 W (IEC 60081) or 40 W (ANSI C78.81) The light fitting features a flameproof electronic ballast (6042/14 and 6042/9) and, optionally, can be fitted with control device/monitoring module 6048 and contact element 8080. All components have been certified separately.

### CONDITIONS OF CERTIFICATION: NO

Empty box for conditions of certification.



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**Additional information:**

Additional information see attachment



Applicant: R. STAHL Schaltgeräte GmbH

Electrical Apparatus: Light fitting for fluorescent lamps, type 6006/5.-....-.....

### Description of equipment

The light fitting of type 6006/5.-....-..... is an explosion-protected light fitting for use in Zone 1, Zone 2, Zone 21 and Zone 22. It is available for wall, ceiling or pole mounting. The light fitting consists of an enclosure made of polyester resin and a light-transmitting protective cover made of polycarbonate.

The joint surface between the enclosure and the cover is fitted with a seal, thus making it water- and dust-tight.

The light fitting features a flameproof electronic ballast (6042/14 and 6042/9) and, optionally, can be fitted with monitoring module 6048 and contact element 8080.

All components have been certified separately.

### Type of protection

Flameproof Enclosures "d"

Increased Safety "e"

Protection by Enclosure "t"

### Marking

Ex d e IIC T4 Gb and Ex tb IIIC T80 °C Db or

Ex db eb IIC T4 and Ex tb IIIC T80 °C

### Standards

IEC 60079-0:2011 Ed. 6

IEC 60079-7:2006 Ed. 4

IEC 60079-31:2008 Ed. 1

### Technical data

The series 6006 light fitting is available in the following versions:

single and double lamp 18 W (IEC 60081) or 17 W (ANSI C78.81)

single and double lamp 36 W (IEC 60081) or 32 W (ANSI C78.81)

single and double lamp 58 W (IEC 60081) or 40 W (ANSI C78.81)

All components have been certified separately.

Maximum ambient temperature depending on the assembly

Variations with one or two electronic ballast 6042 and monitoring module 6048 or with two electronic ballasts 6042

Rated cross section: 0,75 mm<sup>2</sup> to 4 mm<sup>2</sup> / 6 mm<sup>2</sup> depending on the used connection terminal

The maximum surface temperature of the light fitting outside is T80 °C

Additions to the light fitting, such as breathing glands, metallic entries; bi-pin fluorescent lamps with a diameter of 26 mm (to IEC 60081 or ANSI IEC C78.81) with socket G 13 are permissible. The light fittings are suitable for use in explosive gas atmospheres and in combustible dust atmospheres.

Depending upon the assembly parts and the additional features, the light fitting shall be used in accordance with the marking.



The ambient temperature range, depending on the assembly:

Light fitting with monitoring module

-20 °C to xx °C

Light fitting without monitoring module

-30 °C to +60 °C (18 W)

-30 °C to +55 °C (36 W)

-20 °C to +55 °C (58 W)

-30 °C to +40 °C (17 W, 32 W)

-20 °C to +40 °C (40 W)

-20 °C to xx °C with breathing gland (all wattages)

### Nomenclature

Light fitting 6006/abc-defg-hijkl

a version

5 = with lamp holder G13

b Power of lamp

2 = 18 W

3 = 17 W

4 = 36 W

5 = 32 W

6 = 58 W

7 = 40 W

c Number of lamps

1 = 1 lamp

2 = 2 lamps

d Method of switching

9 = dual-channel (1 or 2 electronic ballasts)

e to g numerals or letters without influence to explosion-protection

h monitoring module

0 = 1 x Electronic ballast, 0 x Monitoring module

1 = 1 x Electronic ballast, 1 x Monitoring module

2 = 2 x Electronic ballast, 1 x Monitoring module

3 = 2 x Electronic ballast, 0 x Monitoring module

i to l numerals or letters without influence to explosion-protection

Light fittings with one or two electronic ballasts and monitoring module or with two electronic ballasts without monitoring module

| Type                | Variations              | Lamps    | Through wiring, 3 wires are energized |                         |       |       |                         |       |
|---------------------|-------------------------|----------|---------------------------------------|-------------------------|-------|-------|-------------------------|-------|
|                     |                         |          | without                               | 3 x 2,5 mm <sup>2</sup> |       |       | 3 x 4,0 mm <sup>2</sup> |       |
|                     |                         |          | -                                     | 4 A                     | 8 A   | 16 A  | 10 A                    | 20 A  |
| 6006/52.-....-1.... | 1 x 6042/14. + 1 x 6048 | 2 x 18 W | 60 °C                                 | 60 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
| 6006/54.-....-1.... | 1 x 6042/94. + 1 x 6048 | 2 x 36 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
| 6006/54.-....-3.... | 2 x 6042/94. + 0 x 6048 | 2 x 36 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
| 6006/54.-....-2.... | 2 x 6042/94. + 1 x 6048 | 2 x 36 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
| 6006/54.-....-1.... | 1 x 6042/14. + 1 x 6048 | 2 x 36 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
| 6006/54.-....-3.... | 2 x 6042/14. + 0 x 6048 | 2 x 36 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
| 6006/54.-....-2.... | 2 x 6042/14. + 1 x 6048 | 2 x 36 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 50 °C                   | 50 °C |
| 6006/54.-....-3.... | 2 x 6042/98. + 0 x 6048 | 2 x 36 W | 45 °C                                 | 45 °C                   | 40 °C | 40 °C | 40 °C                   | 40 °C |
| 6006/55.-....-3.... | 2 x 6042/95. + 0 x 6048 | 2 x 32 W | 40 °C                                 | 40 °C                   | 40 °C | 40 °C | 40 °C                   | 40 °C |
| 6006/56.-....-1.... | 1 x 6042/96. + 1 x 6048 | 2 x 58 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
| 6006/56.-....-3.... | 2 x 6042/96. + 0 x 6048 | 2 x 58 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
| 6006/56.-....-2.... | 2 x 6042/96. + 1 x 6048 | 2 x 58 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
| 6006/57.-....-3.... | 2 x 6042/97. + 0 x 6048 | 2 x 40 W | 40 °C                                 | 40 °C                   | 40 °C | 40 °C | 40 °C                   | 40 °C |

Light fittings with one or two electronic ballasts without monitoring module

| Type                | Electronic ballast | Lamps    | Through wiring, 3 wires are energized |                         |       |       |                         |       |
|---------------------|--------------------|----------|---------------------------------------|-------------------------|-------|-------|-------------------------|-------|
|                     |                    |          | without                               | 3 x 2,5 mm <sup>2</sup> |       |       | 3 x 4,0 mm <sup>2</sup> |       |
|                     |                    |          | -                                     | 4 A                     | 8 A   | 16 A  | 10 A                    | 20 A  |
| 6006/52.-....-0.... | 6042/92.           | 2 x 18 W | 60 °C                                 | 60 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
|                     | 6042/14.           | 2 x 18 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
|                     | 6042/91.           | 2 x 18 W | 45 °C                                 | 45 °C                   | 45 °C | 40 °C | 45 °C                   | 40 °C |
| 6006/53.-....-0.... | 6042/93.           | 2 x 17 W | 40 °C                                 | 40 °C                   | 40 °C | 40 °C | 40 °C                   | 40 °C |
| 6006/54.-....-0.... | 6042/94.           | 2 x 36 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
|                     | 6042/14.           | 2 x 36 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
|                     | 6042/98.           | 2 x 36 W | 45 °C                                 | 45 °C                   | 45 °C | 40 °C | 40 °C                   | 40 °C |
| 6006/55.-....-0.... | 6042/95.           | 2 x 32 W | 40 °C                                 | 40 °C                   | 40 °C | 40 °C | 40 °C                   | 40 °C |
| 6006/56.-....-0.... | 6042/96.           | 2 x 58 W | 55 °C                                 | 55 °C                   | 55 °C | 50 °C | 55 °C                   | 50 °C |
| 6006/57.-....-0.... | 6042/97.           | 2 x 40 W | 40 °C                                 | 40 °C                   | 40 °C | 40 °C | 40 °C                   | 40 °C |



## Electrical data

### Rated values for light fitting with one or two electronic ballasts and with monitoring module

Type 6006/52.-.....-1.....

Type 6006/54.-.....-1..... and Type 6006/54.-.....-2.....

Type 6006/56.-.....-1..... and Type 6006/56.-.....-2.....

Rated voltages 198 V to 264 V AC  
176 V to 264 V DC

Current consumption monitoring module < 4 mA (electric connected EGV is switched on)

< 8 mA (electric connected EGV is switched off)

power consumption monitoring module < 850 mW (electric connected EGV is switched on)

< 1,7 W (electric connected EGV is switched of)

### Rated values for light fitting with one or two electronic ballasts without monitoring module

| Type                | Electronic ballast | Rated voltage range                    | Rated frequency | Lamp        |
|---------------------|--------------------|--|-----------------|-------------|
| 6006/52.<br>6006/54 | 6042/14.-..        | 198 V to 264 V AC<br>176 V to 270 V DC | 0, 50 to 60 Hz  | IEC 60081   |
| 6006/52.            | 6042/92.           | 198 V to 264 V AC<br>176 V to 264 V DC | 0, 50 to 60 Hz  | IEC 60081   |
| 6006/52.            | 6042/91.           | 99 V to 264 V AC<br>104 V to 264 V DC  | 0, 50 to 60 Hz  | IEC 60081   |
| 6006/53.            | 6042/93.           | 108 V to 305 V AC<br>113 V to 294 V DC | 0, 50 to 60 Hz  | ANSI C78.81 |
| 6006/54.            | 6042/94.           | 198 V to 264 V AC<br>176 V to 264 V DC | 0, 50 to 60 Hz  | IEC 60081   |
| 6006/54.            | 6042/98.           | 99 V to 264 V AC<br>104 V to 264 V DC  | 0, 50 to 60 Hz  | IEC 60081   |
| 6006/55.            | 6042/95.           | 108 V to 305 V AC<br>113 V to 294 V DC | 0, 50 to 60 Hz  | ANSI C78.81 |
| 6006/56.            | 6042/96.           | 198 V to 264 V AC<br>176 V to 264 V DC | 0, 50 to 60 Hz  | IEC 60081   |
| 6006/57.            | 6042/97.           | 108 V to 305 V AC<br>113 V to 294 V DC | 0, 50 to 60 Hz  | ANSI C78.81 |