



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

Certificate No.:	IECEX PTB 07.0018	Issue No: 4	<u>Certificate history:</u> Issue No. 4 (2016-02-11) Issue No. 3 (2015-01-09) Issue No. 2 (2013-01-07) Issue No. 1 (2011-08-29) Issue No. 0 (2007-03-29)
Status:	Current	Page 1 of 4	
Date of Issue:	2016-02-11		
Applicant:	R. STAHL Schaltgeräte GmbH Am Bahnhof 30 74638 Waldenburg (Württ.) Germany		
Electrical Apparatus:	Inspection light and tubular light fitting		
Optional accessory:	<i>6149/*-****-****-** and 6039/2-****-****-**</i>		
Type of Protection:	Flameproof enclosures "d", Protection by enclosures "tb"		
Marking:	Ex d IIC TX Gb or Ex db IIC TX Ex tb IIIC TXXX°C Db or Ex tb IIIC T XXX°C		

Approved for issue on behalf of the IECEx
Certification Body:

Dr.-Ing. Detlev Markus

Position:

Head of Working Group "Flame propagation processes"

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:



IECEX Certificate of Conformity

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Manufacturer: **R. STAHL Schaltgeräte GmbH**
Am Bahnhof 30
74638 Waldenburg (Württ.)
Germany

Additional Manufacturing
location(s):

R. STAHL Schaltgeräte GmbH
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99427 Weimar
Germany

R. STAHL (P) LTD., Plot No. - 5
Malrosapuram Road, Sengundram Indl. Area
Singaperumal Koil, Kanacheepuram Dist.,
Tamilnadu – 603 204
India

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 : 2007-10 Edition:5	Explosive atmospheres - Part 0:Equipment - General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition:1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'

*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/ExTR16.0005/00](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/07](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The inspection light is a mobile/portable electrical device. The tubular light fitting is a stationary or hand-held device. As illuminant LED's or cold-cathodes are used as specified in the electrical rates below.

Electric energy is fed into the unit through a separately certified cable entry.

More details are specified in the attachment to the Certificate which is available from the on-line Version.

CONDITIONS OF CERTIFICATION: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Other LED Types can be used as an alternative in the inspection light of type 6149/2-..... resp. the tubular light fitting 6039/2-.....

All other technical details remain unchanged.

Annex:

[COCA070018-04.pdf](#)



Applicant: R. STAHL Schaltgeräte GmbH
Am Bahnhof 30
74638 Waldenburg (Württ.)
Germany

Electrical Apparatus: Inspection light and tubular light fitting
6149/*-****-****-** and 6039/2-****-****-**

Description of equipment

The inspection light is a mobile/portable electrical device. The tubular light fitting is a stationary or hand-held device. As illuminant LED's or cold-cathodes are used as specified in the electrical rates below.

Electric energy is fed into the unit through a separately certified cable entry.

Nomenclature

Inspection light with cold cathode	Type 6149/a-bcd-efgh
a	1 = version with cold cathode
b	Voltage 1 = 12 V AC 2 = 12 V DC 3 = 24 V to 48 V AC/DC 5 = 110 V to 230 V AC 9 = special voltage
c	Number of lamps 1 = 2 lamps 2 = 4 lamps
d, e, f, g, h	Numerals or letters without influence to explosion-protection

Inspection light or tubular light fitting with LED	Type 6149/a-bcde-fghi-jk or Type 6039/a-bcde-fghi-jk
a	2 = version with LED
b	Voltage 2 = 12 V DC 3 = 24 V to 48 V AC/DC 5 = 110 V to 240 V AC/DC 9 = special voltage
c	LED arrangement 1 = single row, T4 2 = double row, T4 3 = single row, T6 4 = double row, T6
d, e, f, g, h, i, j, k	Numerals or letters without influence to explosion-protection.



Electrical data

Inspection light with cold cathode

Type	6149/1-*2*-**** (4 lamps)		
Rated voltage	12 V AC	24 V to 48 V AC/DC	110 V to 230 V AC
Temperature class	T4	T4	T4
max. surface temperature	T 105 °C	T 110 °C	T 120 °C
max. ambient temperature T_a	40 °C	45 °C	45 °C

Type	6149/1-*1*-**** (2 lamps)			
Rated voltage	12 V DC	12 V AC	24 V to 48 V AC/DC	110 V to 230 V AC
Temperature class	T4	T4	T4	T4
max. surface temperature	T 115 °C	T 105 °C	T 105 °C	T 110 °C
max. ambient temperature T_a	50 °C	50 °C	50 °C	50 °C

Inspection light or tubular light fitting with LED

Type (single row)	6149/2-****-****-** or 6039/2-****-****-**				
Rated voltage	12 V DC	24 to 48 V AC/DC	110 to 240 V AC/DC		
Temperature class	T4	T6	T4	T6	T4
max. surface temperature	T 100 °C	T 80 °C	T 100 °C	T 80 °C	T 100 °C
max. ambient temperature T_a	40 °C	40 °C	60 °C	40 °C	60 °C

Type (double row)	6149/2-****-****-** or 6039/2-****-****-**				
Rated voltage	12 V DC	24...48 V AC/DC	110...240 V AC/DC		
Temperature class	T4	T6	T4	T6	T4
max. surface temperature	T 100 °C	T 80 °C	T 100 °C	T 80 °C	T 100 °C
max. ambient temperature T_a	40 °C	40 °C	60 °C	40 °C	60 °C

Type (single and double row)	6039/2-****-****-**	
Rated voltage	24 V to 48 V AC/DC	110 V to 240 V AC/DC
Thermal fuse in d-area	$T_f = 98$ °C	$T_f = 98$ °C
Temperature class	T4	T4
max. surface temperature	T 100 °C	T 100 °C
max. ambient temperature T_a	70 °C	70 °C

The lower value of the permissible ambient temperatures is limited to -40°C. The ambient temperatures may be further limited by the elected components and designs.

Additional notes for safe operation

A moist cloth has to be used to clean the lamp.

The limiting values in IEC 60079-28:2006 were used for evaluation of the optical radiation. Marking in compliance with this standard will not be made.