



Universal spotlight LED

Series 6050/6



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1 General Information

1.1 Manufacturer

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1.2 Information regarding the operating instructions

ID-No.: 264820 / 6050628300
Publication Code: 2022-10-21·BA00·III·en·10

The original instructions are the English edition.
They are legally binding in all legal affairs.

1.3 Further documents

- Data sheet

For documents in additional languages, see r-stahl.com.

1.4 Conformity with standards and regulations

IECEX, ATEX, EU Declaration of Conformity and further national certificates can be downloaded via the following link: <https://r-stahl.com/en/global/support/downloads/>.
IECEX is also available at: <https://www.iecex.com/>

2 Explanation of the symbols

2.1 Symbols in these operating instructions

Symbol	Meaning
	Tips and recommendations on the use of the device
	General danger
	Danger due to explosive atmosphere
	Danger due to energised parts




2.2 Warning notes

Warnings must be observed under all circumstances, in order to minimize the risk due to construction and operation. The warning notes have the following structure:

- Signalling word: DANGER, WARNING, CAUTION, NOTICE
- Type and source of danger/damage
- Consequences of danger
- Taking countermeasures to avoid the danger or damage

	DANGER
	Danger to persons Non-compliance with the instruction results in severe or fatal injuries to persons.
	WARNING
	Danger to persons Non-compliance with the instruction can result in severe or fatal injuries to persons.
	CAUTION
	Danger to persons Non-compliance with the instruction can result in light injuries to persons.
NOTICE	
Avoiding material damage Non-compliance with the instruction can result in material damage to the device and / or its environment.	

2.3 Symbols on the device

Symbol	Meaning
 0158 <small>05594E00</small>	CE marking according to the currently applicable directive.
 8505 <small>23486E00</small>	UKCA marking according to the currently applicable directive.
 <small>02198E00</small>	According to marking, device approved for hazardous areas.

3 Safety notes

3.1 Operating instructions storage

- Read the operating instructions carefully.
- Store the operating instructions at the mounting location of the device.
- Observe applicable documents and operating instructions of the devices to be connected.

3.2 Safe use

Before mounting

- Read and observe the safety notes in these operating instructions!
- Ensure that the contents of these operating instructions are fully understood by the personnel in charge.
- Use the device in accordance with its intended and approved purpose only.
- Always consult R. STAHL Schaltgeräte GmbH if using the device under operating conditions which are not covered by the technical data.
- We cannot be held liable for damage to the device caused by incorrect or unauthorised use or non-compliance with these operating instructions.

For assembly and installation

- Observe national assembly and installation regulations (e.g. IEC/EN 60079-14).
- Observe national safety and accident prevention regulations.
- During installation and operation, observe the information (characteristic values and rated operating conditions) on the type plates and data plates and information signs located on the device.
- Before installation, make sure that the device is not damaged.

Maintenance, repair, commissioning



- Before commissioning, make sure that the device is not damaged.
- Work on the device, such as installation, maintenance, overhaul, repair, may only be carried out by appropriately authorised and trained personnel.
- Perform only maintenance work or repair described in these operating instructions.

3.3 Intended Use


The luminaire is equipment

- for lighting areas, work spaces and objects
- can be used indoors and outdoors
- for stationary mounting
- for use in Zones 1, 21, 2, 22 and in the safe area

3.4 Modifications and alterations

	DANGER
	<p>Explosion hazard due to modifications and alterations to the device! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • Do not modify or alter the device.
	<p>No liability or warranty for damage resulting from modifications and alterations.</p>

4 Function and device design

	DANGER
	<p>Explosion hazard due to improper use! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • Use the device only in accordance with the operating conditions described in these operating instructions. • Use the device only for the intended purpose specified in these operating instructions.

4.1 Function

Application range

The luminaire 6050/6 is used as equipment for lighting areas, work equipment and objects.

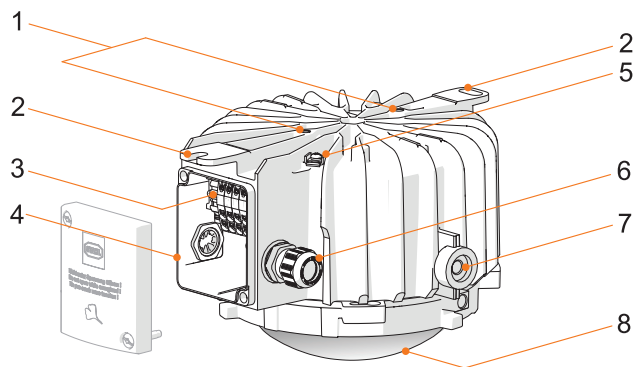
It can be used indoors and outdoors.

The luminaire is approved for use in hazardous areas of Zones 1, 2, 21 and 22.

Mode of operation

The luminaire can be dimmed and switched via a DALI interface (optional).

4.2 Device design



20017E00

- | | | | |
|---|-------------------------------------------------|---|-----------------------------|
| 1 | Thread for M8 ring bolts | 5 | External earth connection |
| 2 | Fastening clip for direct fastening with screws | 6 | Cable entry |
| 3 | Terminal block | 7 | Holder for pivoting bracket |
| 4 | Connection box | 8 | Glass |

5 Technical data

Explosion Protection

Global (IECEX)

Gas and dust

IECEX EPS 17.0093
 Ex db eb op is IIC T.¹⁾ Gb
 Ex tb op is IIIC T...°C¹⁾ Db

Europe (ATEX, UKEX)

Gas and dust

EPS 17 ATEX 1 181, CML 21UKEX1556
 Ⓢ II 2 G Ex db eb op is IIC T.¹⁾ Gb
 Ⓢ II 2 D Ex tb op is IIIC T...°C¹⁾ Db

1)	Variant	Temperature class	Max. surface temperature
	6050/604-.....	T4	110 °C
	6050/606-.....	T6	80 °C

Certifications and certificates

Certificates

IECEX, ATEX, UKEX, EAC (TR)

Technical Data

Electrical data

Rated operational voltage

Variant	Power	Voltage
6050/6xx-202-xxx-xxxxxx	20 W	220 to 240 V AC, 50/60 Hz
6050/6xx-400-xxx-xxxxxx	40 W	110 to 277 V AC, 50/60 Hz
6050/6xx-600-xxx-xxxxxx	60 W	
6050/6xx-401-xxx-xxxxxx 6050/6xx-403-xxx-xxxxxx	40 W	220 to 240 V AC, 50/60 Hz
6050/6xx-601-xxx-xxxxxx 6050/6xx-603-xxx-xxxxxx	60 W	
6050/6xx-801-xxx-xxxxxx 6050/6xx-803-xxx-xxxxxx	80 W	
6050/6xx-411-xxx-xxxxxx	40 W	
6050/6xx-611-xxx-xxxxxx	60 W	220 to 240 V AC, 50/60 Hz 196 to 250 V DC
6050/6xx-811-xxx-xxxxxx	80 W	

Inrush current

Variant	Power	Start-up current
6050/6xx-202-xxx-xxxxxx	20 W	$I_{peak} = \leq 25 \text{ A}; \Delta t = 150 \mu\text{s}$
6050/6xx-400-xxx-xxxxxx	40 W	$I_{peak} = 55 \text{ A}; \Delta t = 230 \mu\text{s}$
6050/6xx-600-xxx-xxxxxx	60 W	
6050/6xx-4x1-xxx-xxxxxx 6050/6xx-4x3-xxx-xxxxxx	40 W	$I_{peak} = 57 \text{ A}; \Delta t = 210 \mu\text{s}$
6050/6xx-6x1-xxx-xxxxxx 6050/6xx-6x3-xxx-xxxxxx	60 W	
6050/6xx-8x1-xxx-xxxxxx 6050/6xx-8x3-xxx-xxxxxx	80 W	

Maximum number of luminaires per miniature circuit breaker at 230 V:

Variant	Type	10 A	16 A	20 A	25 A
6050/6xx-202-xxx-xxxxxx	B	23	36	45	57
	C	39	61	76	96
6050/6xx-400-xxx-xxxxxx 6050/6xx-600-xxx-xxxxxx	B	7	11	13	17
	C	11	18	22	28
6050/6xx-4x1-xxx-xxxxxx 6050/6xx-4x3-xxx-xxxxxx 6050/6xx-6x1-xxx-xxxxxx 6050/6xx-6x3-xxx-xxxxxx 6050/6xx-8x1-xxx-xxxxxx 6050/6xx-8x3-xxx-xxxxxx	B	7	12	14	21
	C	11	19	23	32

Power factor

$\cos \varphi \geq 0.9$

Protection class

I (internal + external PE / PA connection)

Technical Data

Luminous characteristics

Neutral white

 Colour rendering $R_a: \geq 80$

Colour temperature [K]: 5,000

Version	20 W	40 W	60 W	80 W
Power consumption [W]	16.4	40.1	60.3	77.7

Clear glass

Luminous flux [lm]	2,015	5,077	7,357	8,772
Luminaire efficacy [lm/W]	122.9	126.6	122.0	112.8

Matted glass

Luminous flux [lm]	1,866	4,698	6,802	8,110
Luminaire efficacy [lm/W]	113.8	117.1	112.8	104.4
Energy efficiency class	C	D, E	D, E	D, E

Extra-warm white

 Colour rendering $R_a: \geq 80$

Colour temperature [K]: 2,200

Version	20 W	40 W	60 W	80 W
Power consumption [W]	–	40.1	60.3	77.7

Clear glass

Luminous flux [lm]	–	4,020	5,825	6,946
Luminaire efficacy [lm/W]	–	100	97	89

Matted glass

Luminous flux [lm]	–	3,720	5,386	6,422
Luminaire efficacy [lm/W]	–	93	89	83
Energy efficiency class	–	F	F	F

Warm white

 Colour rendering $R_a: \geq 80$

Colour temperature [K]: 2,700

Version	20 W	40 W	60 W	80 W
Power consumption [W]	16.4	40.1	60.3	77.7

Clear glass

Luminous flux [lm]	1,811	4,465	6,613	7,883
Luminaire efficacy [lm/W]	110	114	110	101

Matted glass

Luminous flux [lm]	1,677	4,219	6,114	7,288
Luminaire efficacy [lm/W]	102	105	101	94
Energy efficiency class	D	D, E	D, E	D, E

Technical Data

Warm neutral white

Colour rendering $R_a: \geq 80$
 Colour temperature [K]: 4,000

Version	20 W	40 W	60 W	80 W
Power consumption [W]	16.4	40.1	60.3	77.7

Clear glass

Luminous flux [lm]	1,955	4,925	7,136	8,508
Luminaire efficacy [lm/W]	119.2	122.8	118.3	109.5

Matted glass

Luminous flux [lm]	1,810	4,557	6,598	8,110
Luminaire efficacy [lm/W]	110.4	113.6	109.4	101.2
Energy efficiency class	D	D, E	D, E	D, E

Daylight white

Colour rendering $R_a: \geq 80$
 Colour temperature [K]: 6,500

Version	20 W	40 W	60 W	80 W
Power consumption [W]	16.4	40.1	60.3	77.7

Clear glass

Luminous flux [lm]	1,955	4,925	7,136	8,508
Luminaire efficacy [lm/W]	119.2	122.8	118.3	109.5

Matted glass

Luminous flux [lm]	1,810	4,557	6,598	8,110
Luminaire efficacy [lm/W]	110.4	113.6	109.4	101.2
Energy efficiency class	D	D, E	D, E	D, E

Values apply to $T_a = +25\text{ °C}$.

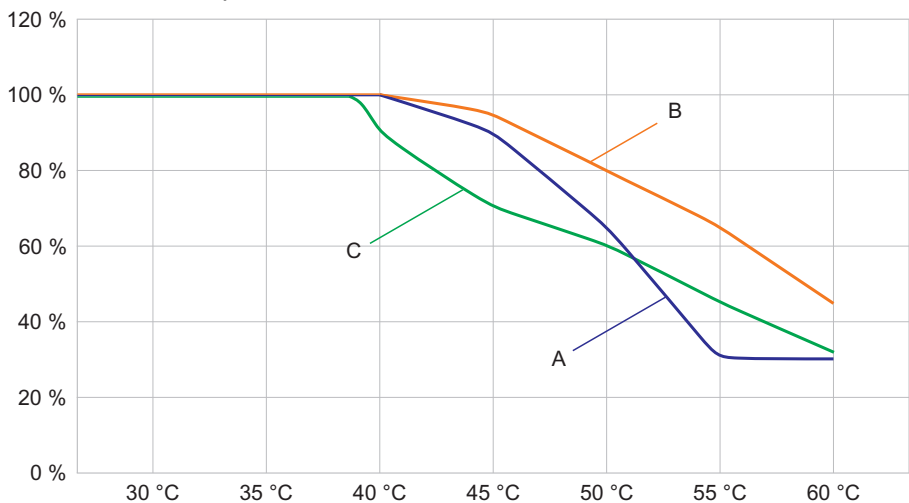
Energy efficiency class of the light source

The device contains a light source in the energy efficiency class according to the information in the previous table (according to the Energy Labelling Regulation for light sources)

Technical Data

Luminous flux decline

- during DC operation to 50%
- at ambient temperature



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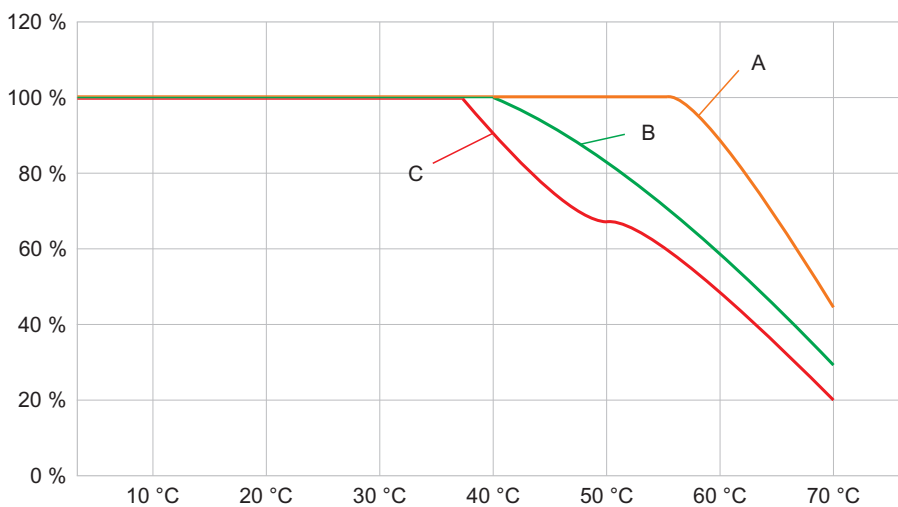
A: 6050/6xx-202-xxx-xxxxxx

B: 6050/6xx-400-xxx-xxxxxx

C: 6050/6xx-600-xxx-xxxxxx

Luminous flux decline

The luminous flux decline of the 2,200 K variants is 5 K less than it is for the specified variants.



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A: 6050/6xx-4x1-xxx-xxxxxx, 6050/6xx-403-xxx-xxxxxx

B: 6050/6xx-6x1-xxx-xxxxxx, 6050/6xx-603-xxx-xxxxxx

C: 6050/6xx-8x1-xxx-xxxxxx, 6050/6xx-803-xxx-xxxxxx

Technical Data

Ambient conditions

Functional ambient temperature range

Temperature class T4

Variant	Power	Ambient temperature
6050/604-202-xxx-xxxxxx	20 W	-40 to +60 °C
6050/604-400-xxx-xxxxxx	40 W	
6050/604-600-xxx-xxxxxx	60 W	
6050/604-4x1-xxx-xxxxxx 6050/604-403-xxx-xxxxxx	40 W	-40 to +70 °C
6050/604-6x1-xxx-xxxxxx 6050/604-603-xxx-xxxxxx	60 W	
6050/604-8x1-xxx-xxxxxx 6050/604-803-xxx-xxxxxx	80 W	

Temperature class T6

Variant	Power	Ambient temperature
6050/606-202-xxx-xxxxxx	20 W	-40 to +50 °C
6050/606-400-xxx-xxxxxx	40 W	
6050/606-600-xxx-xxxxxx	80 W	

Storage temperature

-40 to +70 °C

Service life

LED

	Ambient temperature		
	$T_a \leq 25\text{ °C}$	$T_a \leq 60\text{ °C}$	$T_a \leq 70\text{ °C}$
$L_{90}B_{50}$	80,000 h	50,000 h	25,000 h

L_xB_y

At the end of the service life:

- Luminous flux declines to "x" percent
- Up to "y" percent of all luminaires fall below "x"

Control gear

	$T_a \leq 25\text{ °C}$	$T_a \leq 70\text{ °C}$
C_{10}	100,000 h	50,000 h

C_{10} = failure rate 10%

Mechanical data

Degree of protection

IP66; IP68 (10 m immersion depth 30 min) (IEC 60598)

Material

Enclosure

Light metal

Protective glass

Temperature-resistant pressed glass

Cover seal

Silicon

Internal reflector

Aluminium

External reflector

Highest grade aluminium

Wire guard

Steel wire (stainless steel)

Enclosure lock

Secured with an M3 screw (Torx TX) in the connection box

Technical Data

Mounting / Installation



Position of normal use	any								
Cable entry									
Standard	2 x M25 x 1.5; 1 x cable entry Ø 7 to 17 mm, 1 x stopping plug								
Special	2 x M20 x 1.5; 1 x cable entry Ø 6 to 13 mm, 1 x stopping plug 2 x NPT ³ / ₄ " threaded holes 2 x NPT 1" threaded holes								
Connection option	Spring clamp terminals Standard: 5-pole: L1, L2, L3, N, PE With DALI: 7-pole: L1, L2, L3, N, PE, D1, D2 1 x 1.5 to 4 mm ² (finely stranded) 1 x 1.5 to 6 mm ² (solid and finely stranded with core end sleeve) (2 free clamping units per pole available)								
Mounting	<p>Direct: By means of two integrated fastening clips on the enclosure for screws with a max. diameter of 10 mm</p> <p>Suspended: By means of two M8 ring bolts (accessories) installed in the integrated threads in the enclosure or by means of the single-point fastening (accessories) installed in the integrated threads in the cover</p> <p>Pivoting: By means of the mounting bracket (accessories) installed on the integrated holder on the enclosure</p> <p>On the pipe: By means of the pipe assembly kit (accessories) directly on a pipe Ø 1 1/4" to 2"</p>								
Wire guard and antiglare device	can easily be mounted later using an M6 mounting screw								
Optional									
DALI-connection	DALI interface in accordance with IEC 62386-207:2009-08 for the following variants:								
	<table border="1"> <thead> <tr> <th>Variant</th> <th>Power</th> </tr> </thead> <tbody> <tr> <td>6050/6xx-4x1-xxx-xxxxxx</td> <td>40 W</td> </tr> <tr> <td>6050/6xx-6x1-xxx-xxxxxx</td> <td>60 W</td> </tr> <tr> <td>6050/6xx-8x1-xxx-xxxxxx</td> <td>80 W</td> </tr> </tbody> </table>	Variant	Power	6050/6xx-4x1-xxx-xxxxxx	40 W	6050/6xx-6x1-xxx-xxxxxx	60 W	6050/6xx-8x1-xxx-xxxxxx	80 W
Variant	Power								
6050/6xx-4x1-xxx-xxxxxx	40 W								
6050/6xx-6x1-xxx-xxxxxx	60 W								
6050/6xx-8x1-xxx-xxxxxx	80 W								

For further technical data, see r-stahl.com.

6 Transport and storage

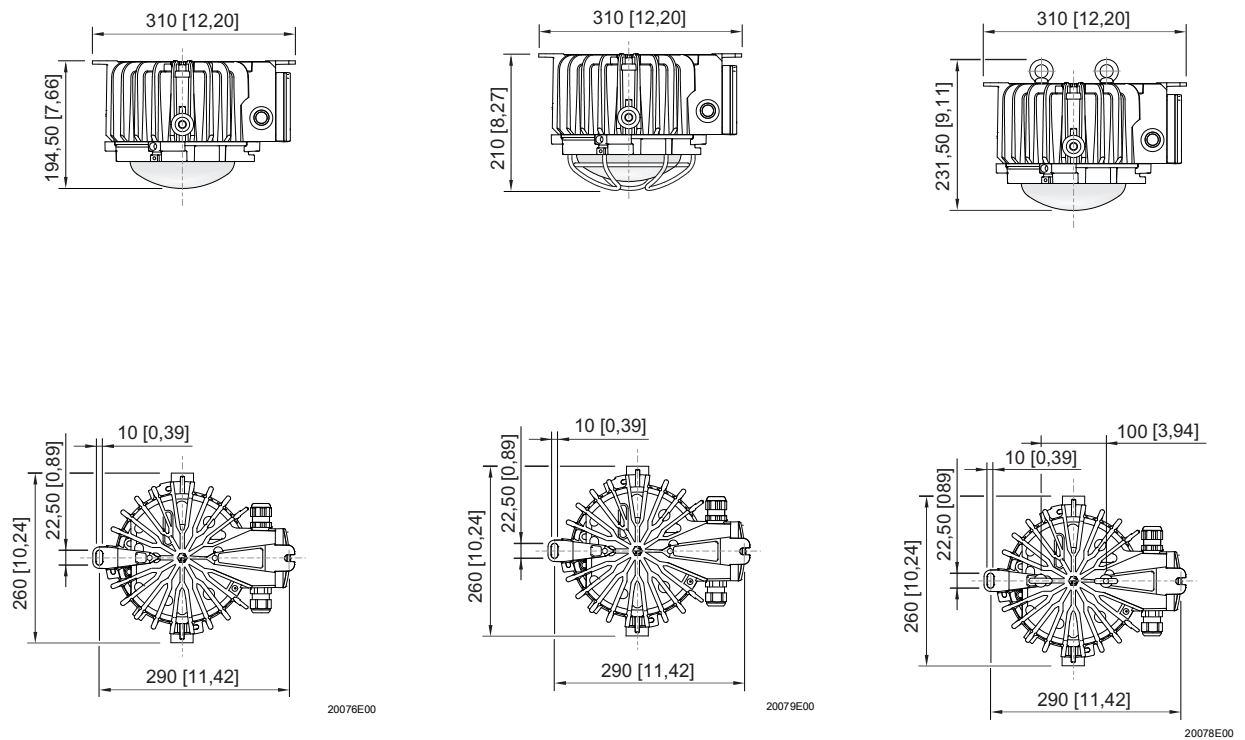
- Transport and store the device only in the original packaging.
- Store the device in a dry place (no condensation) and vibration-free.
- Do not drop the device.

7 Mounting and installation

	<p style="text-align: center;">DANGER</p> <p>Explosion hazard due to electrostatic discharge! Non-compliance results in severe or fatal injuries.</p> <p>Do not use the device in strong charge-generating environments!</p> <p>The following processes/activities should be avoided:</p> <ul style="list-style-type: none"> • accidental friction • particle currents
	<p style="text-align: center;">DANGER</p> <p>Explosion hazard due to incorrect installation of the device! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • Carry out installation strictly according to the instructions and national safety and accident prevention regulations to maintain the explosion protection. • Select and install the electrical device so that explosion protection is not affected due to external influences, i.e. pressure conditions, chemical, mechanical, thermal and electric impact such as vibration, humidity and corrosion (see IEC/EN 60079-14). • The device must only be installed by trained qualified personnel who is familiar with the relevant standards.

7.1 Dimensions / fastening dimensions

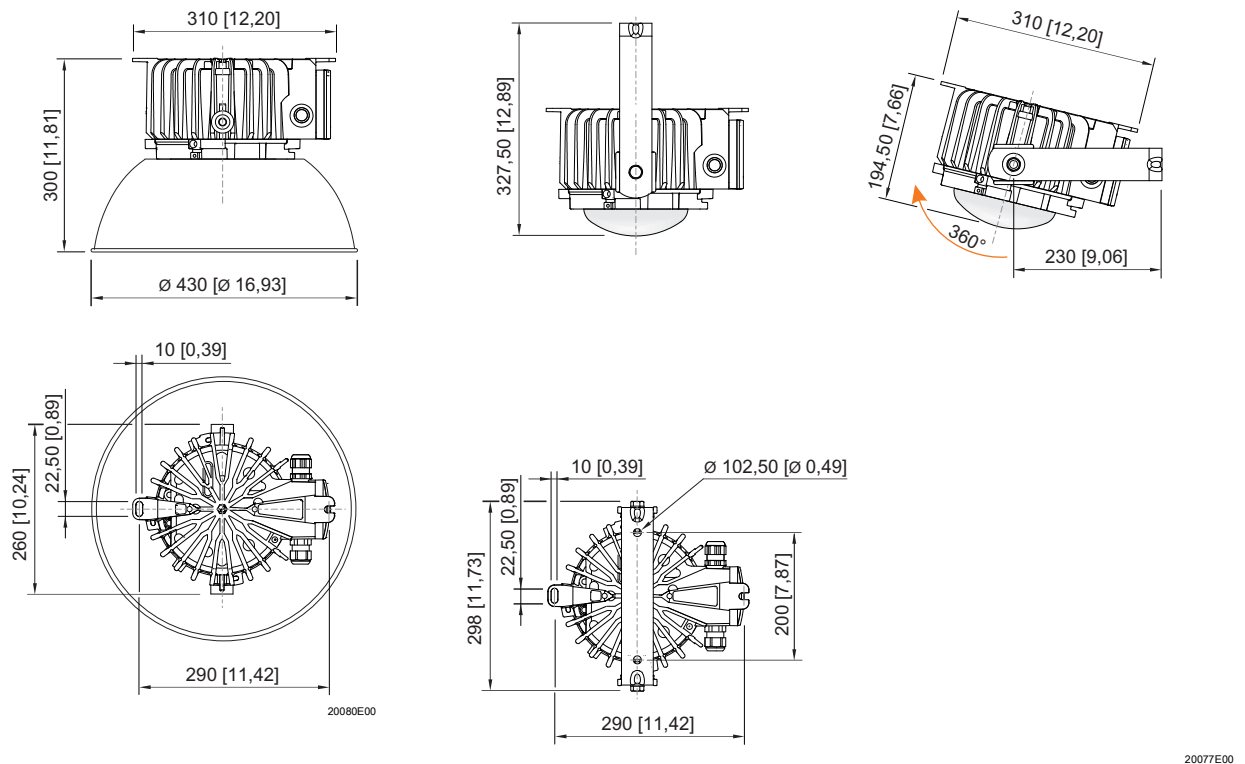
Dimensional drawings (all dimensions in mm [inches]) – Subject to modification



without wire guard

with wire guard

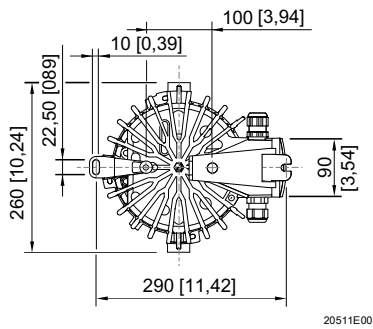
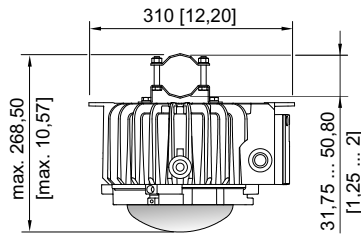
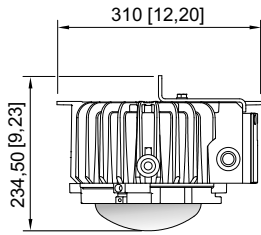
with ring eyes



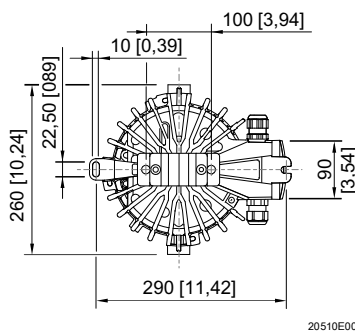
with antiglare device

with bracket

Dimensional drawings (all dimensions in mm [inches]) – Subject to modification



with single-point fastening

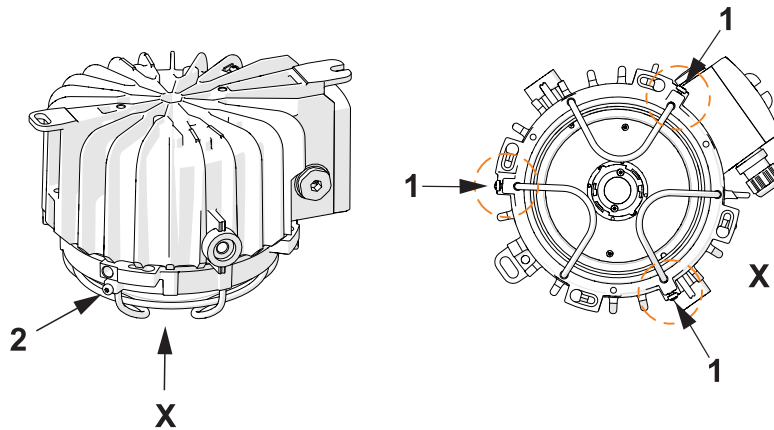


with pipe assembly kit

7.2 Mounting / dismounting, operating position

i	Align the terminal box downwards for installation at an angle.
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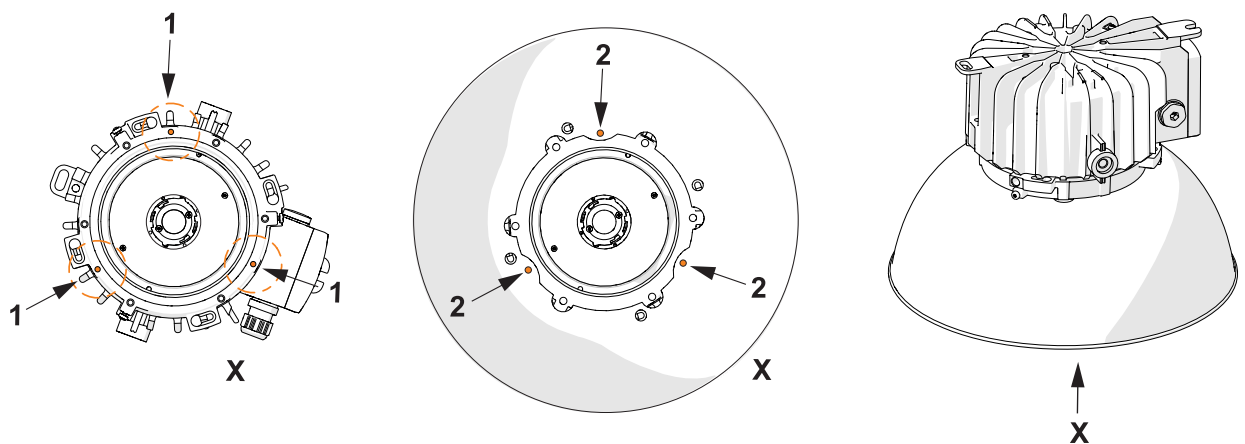
7.2.1 Wire Guard Assembly



- Insert the wire guard into the intended slots (1) of the light fitting.
- Tighten the screws (2). The wire guard is installed.

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7.2.2 Assembly of the External Reflector

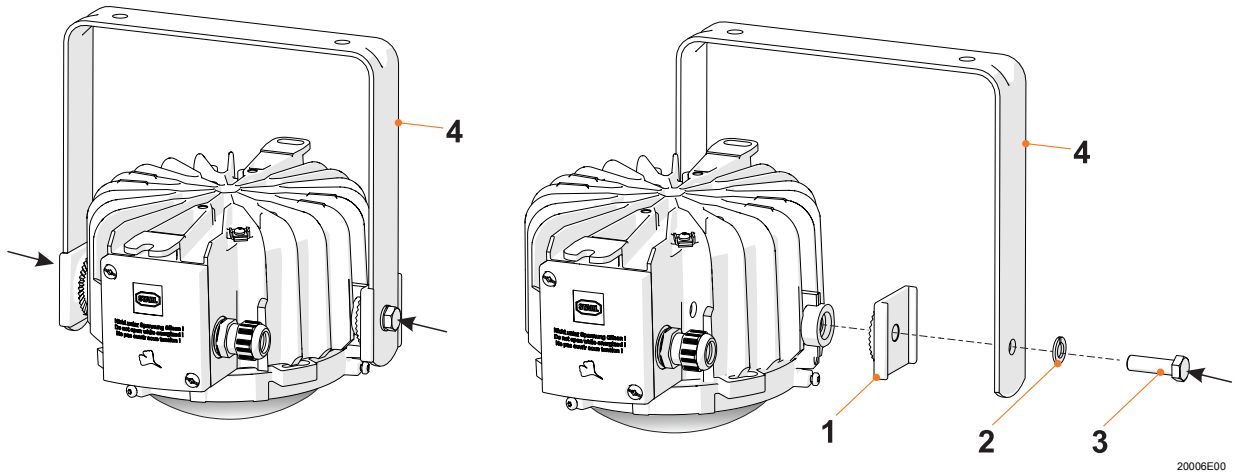


- Attach the external reflector to the light fitting as shown on the drawing.
- Insert the screws (1) included in delivery and tighten them. The external reflector is installed.

20002E00

7.2.3 Assembly of the Holding Bracket

i	The retaining bracket can be used for wall or ceiling installation.
i	Thanks to the raster's adjustment option, the light fitting can be adjusted in steps of 10° to a maximum of 40°.

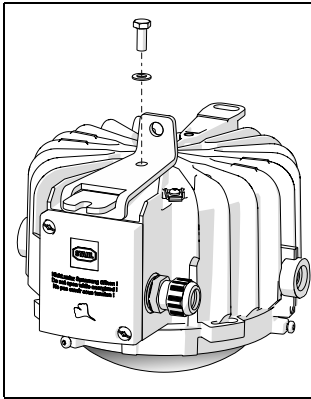


- Place the locking plate (1) against the holder for the pivoting bracket.
- Set the bracket (4) on the locking plate (1).
- Fasten the bracket (4) using the split washer (2) and screw (3).

7.2.4 Ring Bolt Assembly

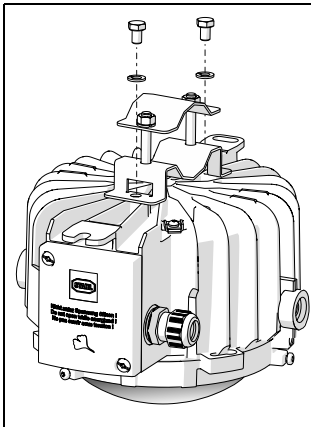
<p>The diagram shows a ring bolt being inserted into a threaded insert on the top of the light fitting. A dashed line indicates the path of the bolt.</p>	<ul style="list-style-type: none"> • Screw the ring bolts into the intended threaded inserts. The ring bolts can be used to suspend the light fitting.
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7.2.5 Mounting the single-point fastening




- Mount the assembly kit to the luminaire with the enclosed hexagon screw.

7.2.6 Mounting the pipe fastening




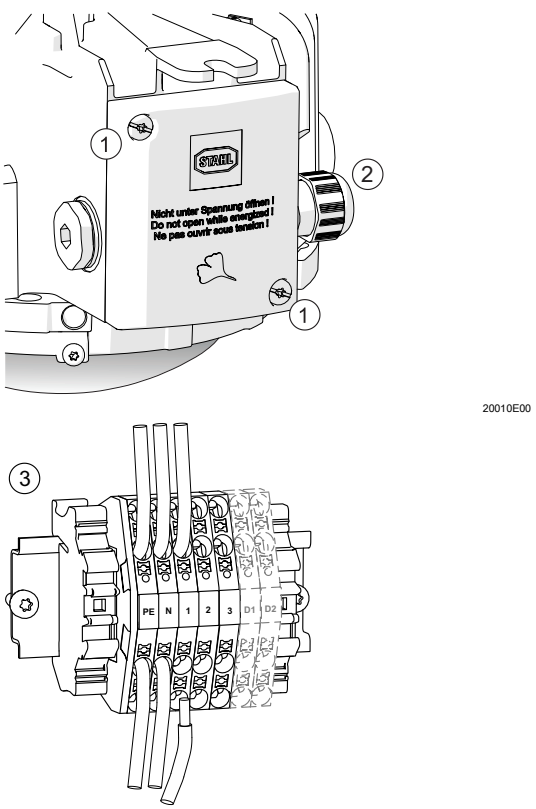
- Mount the lower clamp with the enclosed hexagon screws.
- Fit the luminaire to the pipe by means of the upper clamp and the two enclosed nuts.

7.3 Installation

	DANGER
	<p>Explosion hazard due to opening the enclosure cover! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • It is prohibited to open the enclosure cover of the luminaire.

7.3.1 Electrical connections


	DANGER
	<p>Explosion hazard due to faulty installation! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • Only use conductor provided by the manufacturer for explosive areas. • Make sure that the IP protection is preserved after installation. • Comply with the relevant conductor cross-section: <ul style="list-style-type: none"> • 1.5 to 4 mm² (finely-stranded) • 1.5 to 6 mm² (solid and finely stranded with core end sleeve)

 <p style="text-align: right; font-size: 0.8em;">20010E00</p> <p style="text-align: right; font-size: 0.8em;">20148E00</p>	<ul style="list-style-type: none"> • Loosen the M6 Torx screws (1) and remove the cover. • Loosen cable entry (2) (unscrew approx. 3 rotations). • Insert cable into the terminal box from the outside through the cable entry. • Strip approximately 10 mm of the cable using an appropriate tool. • Unlock the screwless terminals (3) using a screwdriver and insert the cable. Make sure that the conductor insulation is not inserted into the terminal. • Lock cable entry firmly by tightening completely. • Re-attach the cover and close it using the respective screws. The light fitting is now operational.
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7.3.2 Cable entries

The luminaire 6050/6 is equipped with 2 entries, a cable entry and a stopping plug. The electrical connection into the EX d chamber is implemented with a hermetically sealed M 16 x 1.5 conductor bushing size.

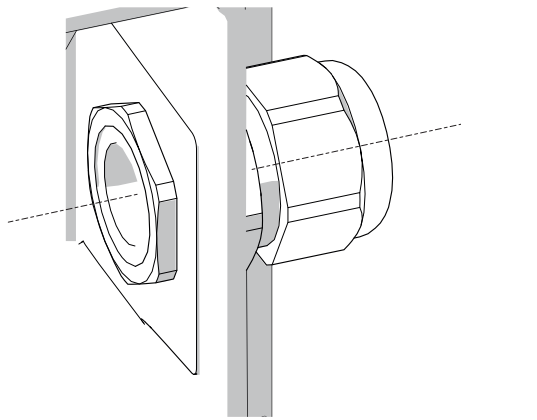
Luminaires with cable entries and stopping plugs which are not supplied by R. STAHL Schaltgeräte GmbH

	DANGER
	<p>Explosion hazard due to impermissible cable entries and stopping plugs! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • Only use separately certified cable glands and stopping plugs which have been tested and certified according to Directive 2014/34/EU (ATEX) or IECEx (CoC) and which comply with the standard version stated in the certificate of the luminaire.


Please observe the following:

- the required dust resistance!
- the required type of protection!
- the required temperature resistance!
- the IP degree of protection according to the rating plate!
- the operating instructions of the cable entries and stopping plugs!
- the required tightening torques!
- the range of the permissible cable diameter!
- Insert the metal cable entries and/or stopping plugs into the PE!

To install additional permitted screw connections, proceed as follows:

	<ul style="list-style-type: none"> • Insert cable entry into the terminal box and tighten with a jam nut from the inside (tightening torque: metal cable gland 3 Nm, plastic screw connection 2 Nm). • Tighten the cable entry and pressure screw of the cable entry after installation. • Use a certified stopping plug to seal the opening that is not used.
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8 Commissioning

	DANGER
	<p>Explosion hazard due to incorrect installation! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • Check the device for proper installation before commissioning. • Comply with national regulations.

Before commissioning, ensure the following:


- Check the mounting and installation.
- Check the device for damage.
- If necessary, remove foreign bodies.
- If necessary, clean the connection chamber.
- Check if the conductors have been inserted correctly.
- Check if all screws and nuts have been tightened firmly.
- Check if all drilled holes are closed.
- Check whether all the cable entries and stopping plugs have been tightened firmly.
- Check if all conductors have been clamped firmly.
- Check if the line voltage and the rated operational voltage are consistent.
- Check if the permissible conductor diameter for the corresponding cable entries have been used.
- Check if the device is closed according to regulations.

9 Maintenance, Overhaul, Repair

	CAUTION
	<p>Risk of electric shock or malfunction of the device due to unauthorized work! Non-compliance can result in light injuries!</p> <ul style="list-style-type: none"> • Before carrying out work on the device, switch off voltage supply. • Work performed on the device must only be carried out by authorized and appropriately trained qualified electricians.
	WARNING
	<p>Risk of burns due to hot surfaces! Non-compliance can result in severe injuries and material damage.</p> <ul style="list-style-type: none"> • Allow the housing, the protective glass and the lamp cool down for approx. 15 min before touching them.

9.1 Maintenance


- Consult the relevant national regulations to determine the type and extent of inspections.
- Adapt inspection intervals to the operating conditions.
- Perform maintenance and repair work in accordance with IEC 60079-17 and IEC 60079-19.

	Observe the relevant national regulations in the country of use.
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During maintenance/overhaul of the device, the following points must be checked:

- Proper function of glass dome and housing,
- Condition of the connection lines,
- Connection of the protective conductor and equipotential bonding,
- Proper function and secure fit of cable entries,
- Seals within the cable entries,
- Cleanliness and proper function of the housing interiors (Ex d and Ex e),
- Secure fit of the holding bracket mounting screws,
- Good visual condition of the flameproof joint (dirt or damage)
- Comply with the permissible temperatures (according to EN 60079),
- Intended use and function.

9.2 Repair

	DANGER
	<p>Explosion hazard due to improper repair! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • Repair work on the devices must be performed only by R. STAHL Schaltgeräte GmbH.

9.3 Returning the device

- Only return or package the devices after consulting R. STAHL!
Contact the responsible representative from R. STAHL.


R. STAHL's customer service is available to handle returns if repair or service is required.

- Contact customer service personally.

or

- Go to the r-stahl.com website.
- Under "Support" > "RMA" > select "RMA-REQUEST".
- Fill out the form and send it.
You will automatically receive an RMA form via email. Please print this file off.
- Send the device along with the RMA form in the packaging to
R. STAHL Schaltgeräte GmbH (refer to chapter 1.1 for the address).

10 Cleaning

	DANGER
	<p>Explosion hazard due to damaged joints when cleaning! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • Only treat corroded joints with high-quality, chemical cleaning agents (e.g. with Esso reducing oils, type Vassol or similar products). • Do not use any abrasives or wire brushes for cleaning. • Do not apply any colour.

- To avoid electrostatic charging, the devices located in potentially explosive areas may only be cleaned using a damp cloth.
- When cleaning with a damp cloth, use water or mild, non-abrasive, non-scratching cleaning agents.
- Do not use aggressive detergents or solvents.
- Clean the flameproof joints regularly with an acid-free grease that is compatible with aluminium.

11 Disposal

- Observe national and local regulations and statutory regulation regarding disposal.
- Separate materials when sending it for recycling.
- Ensure environmentally friendly disposal of all components according to the statutory regulations.
- Removal of components at the end of their service life:
 - Remove and open luminaires according to the operating instructions.
 - Disconnect cables from the LED PCB and control gear.
 - Control gear: Loosen the mounting screws and remove the device.
 - LED PCB: Push the barbs on the underside together using suitable pliers and remove the PCB upwards.

12 Accessories and Spare parts

NOTICE

Malfunction or damage to the device due to the use of non-original components.
Non-compliance can result in material damage.

- Use only original accessories and spare parts from R. STAHL Schaltgeräte GmbH.



For accessories and spare parts, see data sheet on our homepage r-stahl.com.

EU-Konformitätserklärung
EU Declaration of Conformity
Déclaration de Conformité UE





R. STAHL Schaltgeräte GmbH • Am Bahnhof 30 • 74638 Waldenburg, Germany
 erklärt in alleiniger Verantwortung, *declares in its sole responsibility, déclare sous sa seule responsabilité,*

dass das Produkt: **Universalstrahler LED**
that the product: *Universal spotlight LED*
que le produit: *Projecteur universel LED*

Typ(en), type(s), type(s): **6050/6**

mit den Anforderungen der folgenden Richtlinien und Normen übereinstimmt.
is in conformity with the requirements of the following directives and standards.
est conforme aux exigences des directives et des normes suivantes.

Richtlinie(n) / Directive(s) / Directive(s)		Norm(en) / Standard(s) / Norme(s)
2014/34/EU 2014/34/EU 2014/34/UE	ATEX-Richtlinie <i>ATEX Directive</i> <i>Directive ATEX</i>	EN IEC 60079-0:2018 EN 60079-1:2014 EN IEC 60079-7:2015/A1:2018 EN 60079-28:2015 EN 60079-31:2014
Kennzeichnung, marking, marquage:		 II 2 G Ex db eb op is IIC T4/T6 Gb  II 2 D Ex tb op is IIIC T110°C/T80°C Db
EU-Baumusterprüfbescheinigung: <i>EU Type Examination Certificate:</i> <i>Attestation d'examen UE de type:</i>		EPS 17 ATEX 1181 (Bureau Veritas Consumer Produkt Services GmbH, Businesspark A96, 86842 Türkheim, Germany)
Produktnormen nach Niederspannungsrichtlinie: <i>Product standards according to Low Voltage Directive:</i> <i>Normes des produit pour la Directive Basse Tension:</i>		EN 60598-1:2015 EN 60598-2-22:2014/ AC:2016 EN 62471:2008
2014/30/EU 2014/30/EU 2014/30/UE	EMV-Richtlinie <i>EMC Directive</i> <i>Directive CEM</i>	EN 55015:2013/ A1:2015 EN 61547:2009 EN 61000-3-2:2014 EN 61000-3-3:2013
2011/65/EU 2011/65/EU 2011/65/UE	RoHS-Richtlinie <i>RoHS Directive</i> <i>Directive RoHS</i>	EN 50581:2012

Waldenburg, 2020-05-12

Ort und Datum
Place and date
Lieu et date

i.V.


Dr. A. Kaufmann
Senior Vice President Marketing & Innovation
Vice-président directeur Marketing & Innovation

i.V.


J. Freimüller
Vice President Quality Management
Directeur Assurance de Qualité

R. STAHL Schaltgeräte GmbH • Am Bahnhof 30 • 74638 Waldenburg, Germany

represented locally by, *lokal vertreten durch*

R. STAHL LTD. • 2nd Floor, Bromwich Court, Gorse Lane, Coleshill • Birmingham B46 1JU, UK
 declares in its sole responsibility, *erklärt in alleiniger Verantwortung,*

that the product: **Universal spotlight LED**
dass das Produkt: Universalstrahler LED

Type(s), *Typ(en)*: **6050/6.**

is in conformity with the requirements of the following regulations and standards.
mit den Anforderungen der folgenden Verordnungen und Normen übereinstimmt.

Regulation(s) / <i>Verordnung(en)</i>	Standard(s) / <i>Norm(en)</i>
S.I. 2016/1107 Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations <i>S.I. 2016/1107 Verordnung für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen</i>	EN IEC 60079-0:2018 EN 60079-1:2014 EN IEC 60079-7:2015 + A1: 2018 EN 60079-28:2015 EN 60079-31:2014
Marking, <i>Kennzeichnung</i>:	 II 2G Ex db eb op is IIC T4 / T6 Gb II 2D Ex tb op is IIIC T110 °C / T80 °C Db UK CA 8505
UK Type Examination Certificate: <i>UK-Baumusterprüfbescheinigung:</i>	CML 21UKEX1561 (Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, Cheshire, CH65 4LZ, UK, AB2503)
Product standards according to S.I. 2016/1101 Electrical Equipment (Safety) Regulation <i>Produktnormen nach S.I. 2016/1101 (Sicherheits-) Verordnung für elektronische Geräte</i>	EN 60598-1:2015 + A1:2018 EN 60598-2-22:2014 + A1:2020 EN 62471:2008
S.I. 2016/1091 EMC Regulations <i>S.I. 2016/1091 EMV-Verordnung</i>	EN 61547:2009 EN IEC 55015:2019 + A11:2020 EN 61000-3-2:2014 EN 61000-3-3: 2013
S.I. 2012/3032 RoHS Regulations <i>S.I. 2012/3032 RoHS-Verordnung</i>	EN IEC 63000:2018

Waldenburg, 2023-07-26

Place and date
Ort und Datum

i.V.


S. Holtz
Head of R&D - BU Lighting & Signalling
Leiter Entwicklung Leuchten und Signalgerät

i.V.


D. Groth
Director Quality Management Systems
Leiter Qualitätsmanagementsysteme