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Schutz durch Gehäuse „t“

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Deutsche
Akkreditierungsstelle

15.3.2 Thermische Kenngrößen

15.3.2.1 Zulässiger Umgebungstemperaturbereich und Temperaturklasse bei EPL Gb

T _{amb} Bereich	2500	4700	4900	7250	10000	2500 (E3)	4700 (E3)
-40 °C ... +60 °C	T4 ^{1) 3)}	----	T4 ^{1) 3)}	----	----	----	----
-40 °C ... +55 °C	T4	T4 ³⁾	T4	T4 ³⁾	----	----	----
-40 °C ... +50 °C	T4	T4	T4	T4	----	----	----
-40 °C ... +45 °C	T4	T4	T4	T4	T4 ^{2) 3)}	T4 ⁴⁾	T4 ⁴⁾
-40 °C ... +40 °C	T5 T4 ⁵⁾	T5 T4 ⁵⁾	T5 T4 ⁵⁾	T4	T4 ²⁾	T4	T4

1) nicht zulässig bei Verwendung des Treibers qTEK 00*-* mit Notlicht-Funktion

2) keine Notlicht Varianten möglich

3) bei Alternativklemme nicht zulässig für 16 A DC

4) nicht zulässig bei Durchgangsverdrahtung

5) bei Verwendung des Treibers qTEK 00*-*

15.3.2.2 Zulässiger Umgebungstemperaturbereich und maximale Oberflächentemperatur bei EPL Db

T _{amb} Bereich	2500	4700	4900	7250	10000	2500 (E3)	4700 (E3)
-40 °C ... +60 °C	95 °C ^{1) 3)}	----	95 °C ^{1) 3)}	----	----	----	----
-40 °C ... +55 °C	90 °C	110 °C ³⁾	90 °C	100 °C ³⁾	----	----	----
-40 °C ... +50 °C	85 °C	105 °C ³⁾	85 °C	95 °C	----	----	----
-40 °C ... +45 °C	80 °C	100 °C	80 °C	90 °C	105 °C ^{2) 3)}	100 °C ⁴⁾	100 °C ⁴⁾
-40 °C ... +40 °C	75 °C	95 °C	75 °C	85 °C	100 °C ²⁾	95 °C	95 °C

1) nicht zulässig bei Verwendung des Treibers qTEK 00*-* mit Notlicht-Funktion

2) keine Notlicht Varianten möglich

3) bei Alternativklemme nicht zulässig für 16 A DC

4) nicht zulässig bei Durchgangsverdrahtung

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Prüfprotokoll

BVS PP 21.2017 EU, Stand 07.02.2024

17
17.1

Besondere Bedingungen für die Installation und den Betrieb

Treibermodul und LED-Modul dürfen ausschließlich in folgenden Kombinationen verwendet werden:

Leuchte	LED-Modul	Standardtreiber	optional	Notlicht Treiber	
2500	1x LED-Modul 24 ** * ***	qTEK 10* - * (Low Power)	qTEK 20* - * (Mid Power) qTEK 30* - * (High Power)	qTEK 00*-*	
4700	1x LED-Modul 48 ** * ***	qTEK 20* - * (Mid Power)	qTEK 30* - * (High Power)		
4900	2x LED-Modul 24 ** * ***				
7250	2x LED-Modul 36 ** * ***	qTEK 30* - * (High Power)	---	---	
10000	2x LED-Modul 48 ** * ***	qTEK 40* - * (High Power Plus)	---		
2500 E3	1x LED-Modul 24 ** * ***	qTEK 30* - * (High Power)	---		---
4700 E3	1x LED-Modul 48 ** * ***	qTEK 30* - * (High Power)	---		---

17.2

In Abhängigkeit des Umgebungstemperaturbereiches sind Kabel- und Leitungseinführungen mit mindestens einer zulässigen Betriebstemperatur gemäß folgender Tabelle zu verwenden:

T _{amb}	2500 und 4900			4700 und 7250			10000			2500 (E3) und 4700 (E3)		
	ohne DV	DV 10 A	DV 16 A	ohne DV	DV 10 A	DV 16 A	ohne DV	DV 10 A	DV 16 A	ohne DV	DV 10 A	DV 16 A
60 °C	70 °C ¹⁾	75 °C ¹⁾	85 °C ^{1) 3)}	---	---	---	---	---	---	---	---	---
55 °C	70 °C	70 °C	80 °C	70 °C	75 °C	85 °C ³⁾	---	---	---	---	---	---
50 °C	70 °C	70 °C	75 °C	70 °C	70 °C	80 °C ⁴⁾	---	---	---	---	---	---
45 °C	70 °C	70 °C	70 °C	70 °C	70 °C	75 °C	70 °C ²⁾	70 °C ²⁾	75 °C ^{2) 3)}	70 °C	---	---
40 °C	70 °C	70 °C	70 °C	70 °C	70 °C	70 °C	70 °C ²⁾	70 °C ²⁾	70 °C ²⁾	70 °C	70 °C	70 °C

DV Durchgangsverdrahtung

- 1) nicht zulässig bei Verwendung des Treibers qTEK 00* - * mit Kontrolleinheit V
- 2) keine Kontrolleinheit V Varianten möglich
- 3) bei Alternativklemme nicht zulässig
- 4) bei Alternativklemme nicht zulässig (nur 4700 Lumen)

17.3

In Abhängigkeit des Umgebungstemperaturbereiches sind Anschlussleitungen mit mindestens einer zulässigen Temperatur gemäß folgender Tabelle zu verwenden:

T _{amb}	2500 und 4900			4700 und 7250			10000			2500 (E3) und 4700 (E3)		
	ohne DV	DV 10 A	DV 16 A	ohne DV	DV 10 A	DV 16 A	ohne DV	DV 10 A	DV 16 A	ohne DV	DV 10 A	DV 16 A
60 °C	70 °C ₁₎	75 °C ₁₎	90 °C _{1) 3)}	---	---	---	---	---	---	---	---	---
55 °C	70 °C	70 °C	85 °C	70 °C	80 °C	90 °C ₃₎	---	---	---	---	---	---
50 °C	70 °C	70 °C	80 °C	70 °C	75 °C	85 °C ₄₎	---	---	---	---	---	---
45 °C	70 °C	70 °C	75 °C	70 °C	70 °C	80 °C	70 °C ₂₎	70 °C ₂₎	85 °C _{2) 3)}	70 °C	---	---
40 °C	70 °C	70 °C	70 °C	70 °C	70 °C	75 °C	70 °C ₂₎	70 °C ₂₎	80 °C ₂₎	70 °C	70 °C	75 °C

DV Durchgangsverdrahtung

1) nicht zulässig bei Verwendung des Treibers qTEK 00*-* mit Kontrolleinheit V

2) keine Kontrolleinheit V Varianten möglich

3) bei Alternativklemme nicht zulässig

4) bei Alternativklemme nicht zulässig (nur 4700 Lumen)

17.4

Die Leuchte darf ausschließlich mit einem feuchten Tuch gereinigt werden.

17.5

Das LED-Modul darf nicht in Bereichen verwendet werden, in denen intensive elektrostatische Aufladeprozesse vorhanden sein können.

17.6

Für Zone 21 Applikationen, falls Staubatmosphäre vorhanden ist: Das Batteriepack E3 darf nur von der Notversorgungseinheit getrennt werden, wenn die Leuchte von der Netzversorgung getrennt ist.

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Wesentliche Gesundheits- und Sicherheitsanforderungen

Erfüllt durch Einhaltung der unter Punkt 9 genannten Anforderungen.

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Zeichnungen und Unterlagen

Die Zeichnungen und Unterlagen sind in dem vertraulichen Prüfprotokoll gelistet.

Translation

EU-Type Examination Certificate

Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

EU-Type Examination Certificate Number: **BVS 20 ATEX E 069 X** Issue: **01**

Equipment: **Luminaire type EXENEO *.*****-***.***.***.***** ** */****

Manufacturer: **Zumtobel Lighting GmbH**

Address: **Schweizer Strasse 30, 6850 Dornbirn, Austria**

This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of 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 Report No. BVS PP 21.2017 EU/N1. This issue of the EU-Type Examination Certificate replaces the previous issue of the EU-Type Examination Certificate BVS 20 ATEX E 069 X issue 00.

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

EN IEC 60079-0:2018	General requirements
EN IEC 60079-1:2014	Flameproof enclosure "d"
EN 60079-5:2015	Powder filling "q"
EN IEC 60079-7:2015+A1:2018	Increased safety "e"
EN 60079-11:2012	Intrinsic safety "i"
EN 60079-18:2015+A1:2017	Encapsulation "m"
EN 60079-28:2015	Optical radiation „op is“
EN 60079-31:2014	Protection by enclosures "t"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance with 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.

The marking of the product shall include the following:

E3 variant

 **II 2G Ex db eb ib mb op is q IIC T4 Gb**
II 2D Ex op is tb IIIC T* Db

* see thermal data

All other types

 **II 2G Ex eb ib op is q IIC T4/T5 Gb**
II 2D Ex op is tb IIIC T* Db

DEKRA Testing and Certification GmbH
Bochum, 2024-02-07

Signed: Oliver Brumm

Managing Director

13 **Appendix**
 14 **EU-Type Examination Certificate**
BVS 20 ATEX E 069 X issue 01

15 **Product description**

15.1 **Subject and type**

Luminaire type EXENEO *.*****-***.***.*****.*** **/**

Asterisk	Value	Description
1	S L	<u>Size</u> single side LED module double side LED module
2-6	2500 4700 4900 7250 10000	<u>Lumen</u> 2500 Lumen 4700 Lumen 4900 Lumen 7250 Lumen 10000 Lumen
7-9	830 840 xxx	<u>Luminous colour (not Ex-relevant)</u> CRI80 + 3000K CRI80 + 4000K further variants on request
10-11	CL OP xxx	<u>Protective cover and diffuser (not Ex-relevant)</u> clear opal further variants on request
12-13	MB WB NB SLPG	<u>Light distribution</u> medium beam wide beam narrow beam with stray light protection grid
14-17	M25K M20M M25M	<u>Cable gland</u> M25 cable gland made of plastic M20 cable gland made of metal M25 cable gland made of metal
18-19	TW w/o	<u>Through-wiring</u> with through-wiring without through-wiring
20-22	w/o V E3	<u>Emergency control unit</u> without emergency control unit with emergency control unit (size L) with emergency control unit (size S)

15.2 **Description**

The Luminaire type EXENEO consists of a basic housing made of plastic in type of protection Increased Safety "eb" or "tb". One or two LED modules type according to BVS 18 ATEX E 038 U are attached to the basic housing.

The LED modules are made of a plastic housing with glass pane in the type of protection Increased Safety "eb" or "tb" containing circuits in type of protection Intrinsic Safety "ib" when used in combination with the driver module qTEK ***-* and as well in type of Protection by Enclosure "tb".

The electrical supply is realized by the separately certified Driver Module type qTEK ***-* according to BVS 17 ATEX E 015 U in types of protection Increased Safety "eb" and Powder Filling "q".

The electrical connection between basic housing and LED module is done via plug and socket carried out in type of protection Increased Safety "eb" or "tb".

Reason for this issue

- Update of the possible types and adjustments to the parameters

15.3

Parameters

15.3.1

Electrical parameters

Input voltage	AC (50 – 60 Hz)	110 - 277	V
without type EXENEO *.11000-***.*.*.*.*.*.* */**	DC	110 - 277	V
Input voltage	AC (50 – 60 Hz)	220 - 277	V
only type EXENEO *.11000-***.*.*.*.*.*.* */**	DC	220 - 277	V
Input voltage	AC (50 – 60 Hz)	220 - 254	V
with emergency control unit „V“	DC	195 - 250	V
Input voltage	AC (50 – 60 Hz)	110 - 254	V
with emergency control unit „E3“			
Output power (LED-Module)		22 / 33 / 44 / 67 / 88	W

Driver module

Depending on the type of the luminaire the LED modules are supplied by the appropriate driver module (type qTEK ***.*). The drivers match with the LED modules. Due to that fact there is a standard driver for each type of luminaire or optionally the use of the driver with higher power. Optionally driver type qTEK 00*-* can be used which has a V-CG-S function. This variant is permitted for the luminaires according to the table below.

[illegible]

1) standard driver

15.3.2 Thermal parameters

15.3.2.1 Permitted ambient temperature range and temperature class for EPL Gb

T _{amb} range	2500	4700	4900	7250	10000	2500 (E3)	4700 (E3)
-40 °C ... +60 °C	T4 ^{1) 3)}	----	T4 ^{1) 3)}	----	----	----	----
-40 °C ... +55 °C	T4	T4 ³⁾	T4	T4 ³⁾	----	----	----
-40 °C ... +50 °C	T4	T4	T4	T4	----	----	----
-40 °C ... +45 °C	T4	T4	T4	T4	T4 ^{2) 3)}	T4 ⁴⁾	T4 ⁴⁾
-40 °C ... +40 °C	T5 T4 ⁵⁾	T5 T4 ⁵⁾	T5 T4 ⁵⁾	T4	T4 ²⁾	T4	T4

- 1) not permitted if driver qTEK 00*-* with emergency control function is used
2) no emergency control variants possible
3) in case of alternative terminal not permitted for DC 16 A
4) not permitted for through-wiring
5) if driver type qTEK 00*-* is used

15.3.2.2 Permitted ambient temperature range and surface temperature for EPL Db

T _{amb} range	2500	4700	4900	7250	10000	2500 (E3)	4700 (E3)
-40 °C ... +60 °C	95 °C ^{1) 3)}	----	95 °C ^{1) 3)}	----	----	----	----
-40 °C ... +55 °C	90 °C	110 °C ³⁾	90 °C	100 °C ³⁾	----	----	----
-40 °C ... +50 °C	85 °C	105 °C ³⁾	85 °C	95 °C	----	----	----
-40 °C ... +45 °C	80 °C	100 °C	80 °C	90 °C	105 °C ^{2) 3)}	100 °C ⁴⁾	100 °C ⁴⁾
-40 °C ... +40 °C	75 °C	95 °C	75 °C	85 °C	100 °C ²⁾	95 °C	95 °C

- 1) not permitted if driver qTEK 00*-* with emergency control function is used
2) no emergency control variants possible
3) in case of alternative terminal not permitted for DC 16 A
4) not permitted for through-wiring

16 Report Number

BVS PP 21.2017 EU, as of 2024-02-07

17 Specific Conditions of Use

17.1 Driver module and LED module shall only be used in the following combinations:

Luminaire	LED-Module	Standard driver	optional	Emergency driver
2500	1x LED-Module 24 *** **	qTEK 10* - * (Low Power)	qTEK 20* - * (Mid Power) qTEK 30* - * (High Power)	qTEK 00* - *
4700	1x LED-Module 48 *** **	qTEK 20* - * (Mid Power)	qTEK 30* - * (High Power)	
4900	2x LED-Module 24 *** **			
7250	2x LED-Module 36 *** **	qTEK 30* - * (High Power)	---	
10000	2x LED-Module 48 *** **	qTEK 40* - * (High Power Plus)	---	---
2500 E3	1x LED-Module 24 *** **	qTEK 30* - * (High Power)	---	---
4700 E3	1x LED-Module 48 *** **	qTEK 30* - * (High Power)	---	---

- 17.2 Depending on the permitted ambient temperature range cable glands with a minimum permissible operating temperature according to the table below shall be used:

T _{amb}	2500 and 4900			4700 and 7250			10000			2500 (E3) and 4700 (E3)		
	w/o TW	TW 10 A	TW 16 A	w/o TW	TW 10 A	TW 16 A	w/o TW	TW 10 A	TW 16 A	w/o TW	TW 10 A	TW 16 A
60 °C	70 °C ₁₎	75 °C ₁₎	85 °C _{1) 3)}	---	---	---	---	---	---	---	---	---
55 °C	70 °C	70 °C	80 °C	70 °C	75 °C	85 °C ₃₎	---	---	---	---	---	---
50 °C	70 °C	70 °C	75 °C	70 °C	70 °C	80 °C ₄₎	---	---	---	---	---	---
45 °C	70 °C	70 °C	70 °C	70 °C	70 °C	75 °C	70 °C ₂₎	70 °C ₂₎	75 °C _{2) 3)}	70 °C	---	---
40 °C	70 °C	70 °C	70 °C	70 °C	70 °C	70 °C	70 °C ₂₎	70 °C ₂₎	70 °C ₂₎	70 °C	70 °C	70 °C

TW Through-wiring

- 1) not permitted if driver qTEK 00*-* with control unit V function is used
- 2) not possible for control unit V Variants
- 3) not permitted for alternative terminal
- 4) not permitted for alternative terminal (only 4700 lumen)

- 17.3 Depending on the permitted ambient temperature range connection cables with a minimum permissible temperature according to the table below shall be used:

T _{amb}	2500 and 4900			4700 and 7250			10000			2500 (E3) and 4700 (E3)		
	w/o TW	TW 10 A	TW 16 A	w/o TW	TW 10 A	TW 16 A	w/o TW	TW 10 A	TW 16 A	w/o TW	TW 10 A	TW 16 A
60 °C	70 °C ₁₎	75 °C ₁₎	90 °C _{1) 3)}	---	---	---	---	---	---	---	---	---
55 °C	70 °C	70 °C	85 °C	70 °C	80 °C	90 °C ₃₎	---	---	---	---	---	---
50 °C	70 °C	70 °C	80 °C	70 °C	70 °C	85 °C ₄₎	---	---	---	---	---	---
45 °C	70 °C	70 °C	75 °C	70 °C	70 °C	80 °C	70 °C ₂₎	70 °C ₂₎	85 °C _{2) 3)}	70 °C	---	---
40 °C	70 °C	70 °C	70 °C	70 °C	70 °C	75 °C	70 °C ₂₎	70 °C ₂₎	80 °C ₂₎	70 °C	70 °C	75 °C

TW Through-wiring

- 1) not permitted if driver qTEK 00*-* with control unit V function is used
- 2) not possible for control unit V Variants
- 3) not permitted for alternative terminal
- 4) not permitted for alternative terminal (only 4700 lumen)

- 17.4 The luminaire shall only be cleaned with a damp cloth.
- 17.5 The LED Module shall not be used in areas with electrostatically intense charging processes.
- 17.6 For zone 21 application if dust atmosphere is present: the battery pack E3 shall only be disconnected from the emergency supply unit when the luminaire is disconnected from the mains supply.

18 Essential Health and Safety Requirements

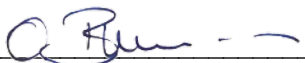
Met by compliance with the requirements mentioned in item 9.

Remarks and additional information

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2024-02-07
BVS-Kir/Mu A 20221108 / 342927600



Managing Director