

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 18 ATEX E 037 X** Issue: **02**

Equipment: **Luminaire type ExLin***.* ***** *** ** */***

Manufacturer: **Cooper Crouse-Hinds GmbH**

Address: **Neuer Weg Nord 49, 69412 Eberbach, Germany**

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 18.2158 EU/N5. This issue of the EU-Type Examination Certificate replaces the previous issue of the EU-Type Examination Certificate BVS 18 ATEX E 037 X issue 01.

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:

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

* siehe thermische Kenngrößen

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, 2023-12-13

Signed: Oliver Brumm

Managing Director

13 **Appendix**
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15 **Product description**

15.1 **Subject and type**

Luminaire type ExLin^{***_* ***** ** ** */*}

ExLin ^{aaa_a bbbbbb ccc ccc d/d}			
Place	Description	Values	
aaa_a	Types	3L-1	2400 lm minimum; 1 module
		4L-1	3600 lm minimum; 1 module
		5L-1	4800 lm minimum; 1 module
		5L-2	4800 lm minimum; 2 modules each 2400 lm
		7L-2	7200 lm minimum; 2 modules each 3600 lm
		10L-2	9600 lm minimum; 2 modules each 4800 lm
bbbbbb	Variants	w/o	standard variant
		V-CG-S	with emergency control unit
		NE+	emergency light version with supply unit VE+
ccc ccc	Versions	Versions without influence on explosion protection (e.g. light colour, transparency, etc.)	
d/d	Through wiring	1/6	without through-wiring
		2/6	with through-wiring
		1/5	without through-wiring alternative terminal
		2/5	with through-wiring alternative terminal

15.2 **Description**

The Luminaire type ExLin^{***_* ***** ** ** */*} consists of a basic housing made of plastic in type of protection Increased Safety “eb” and Protection by Enclosure “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” and Protection by Enclosure “tb” containing circuits in type of protection Intrinsic Safety “ib” when used in combination with the driver module qTEK ^{***_*}. 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” and Protection by Enclosure “tb”.

Details of change

- Addition of variants with coloured foils inside the separately certified LED modules
- Addition of the hot-swap possibility during battery pack replacement.

15.3 Parameters

15.3.1 Electrical parameters

Rated input voltage Types ExLin 3L-1, 4L-1, 5L-* and 7L-2	AC	110 ... 277	V, 50/60 Hz
	DC	110 ... 277	V

Rated input voltage Type ExLin 10L-2	AC	220 ... 277	V, 50/60 Hz
	DC	220 ... 250	V

Rated input voltage V-CG-S variants (all types except ExLin 10L-2)	AC	220 ... 254	V, 50/60 Hz
	DC	195 ... 250	V

Rated input voltage NE+ variants types ExLin 3L-1 and 5L-1	AC	110 ... 254	V, 50/60 Hz
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Output power (LED-modules)			
3L		22	W
4L		33	W
5L		44	W
7L		67	W
10L		88	W

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. The driver module is available in several types with different power output.

Optionally the driver type qTEK 00*-* can be used which has a V-CG-S function.

See table below for dependencies between luminaires, LED-module and permitted drivers.

Luminaire	LED-Module	Permitted drivers			
3L-1	1x LED-module 24 *** ****	qTEK 10*-* ¹⁾ (Low Power)	qTEK 20*-* ¹⁾ (Mid Power)		
4L-1	1x LED-module 36 *** ****			qTEK 30*-* ¹⁾ (High Power)	
5L-1	1x LED-module 48 *** ****		qTEK 20*-* ¹⁾ (Mid Power)		qTEK 00*-* ¹⁾ (V-CG-S)
5L-2	2x LED-module 24 *** ****				
7L-2	2x LED-module 36 *** ****			qTEK 30*-* ¹⁾ (High Power)	
10L-2	2x LED-module 48 *** ****				qTEK 40*-* ¹⁾ (High Power Plus)
3L-1 NE+	1x LED-module 24 *** ****			qTEK 30*-* ¹⁾ (High Power)	
5L-1 NE+	1x LED-module 48 *** ****				

¹⁾ standard driver

15.3.2 Thermal parameters

Permitted ambient temperature range and temperature class for EPL Gb

T _{amb} range	Temperature class							
	3L-1	4L-1	5L-1	5L-2	7L-2	10L-2	3L-1 NE+	5L-1 NE+
-40 °C ... 60 °C	T4 ^{1) 3)}	---	---	T4 ^{1) 3)}	---	---	---	---
-40 °C ... 55 °C	T4	T4 ³⁾	T4 ³⁾	T4	T4 ³⁾	---	---	---
-40 °C ... 50 °C	T4	T4	T4 ³⁾	T4	T4	---	---	---
-40 °C ... 45 °C	T4	T4	T4	T4	T4	T4 ^{2) 3)}	T4 ⁴⁾	T4 ⁴⁾
-40 °C ... 40 °C	T5 T4 ⁵⁾	T4	T5 T4 ⁵⁾	T5 T4 ⁵⁾	T4	T4 ²⁾	T4	T4

- 1) not permitted if driver qTEK 00*-* with V-CG-S function is used
 2) no V-CG-S variants possible
 3) in case of alternative terminal not permitted for TW 16 A
 4) not permitted for through-wiring
 5) if used with driver qTEK 00*-*

Permitted ambient temperature range and max. surface temperature for EPL Db

T _{amb} range	Surface temperature							
	3L-1	4L-1	5L-1	5L-2	7L-2	10L-2	3L-1 NE+	5L-1 NE+
-40 °C ... 60 °C	95 °C ^{1) 3)}	---	---	95 °C ^{1) 3)}	---	---	---	---
-40 °C ... 55 °C	90 °C	100 °C ³⁾	110 °C ³⁾	90 °C	100 °C ³⁾	---	---	---
-40 °C ... 50 °C	85 °C	95 °C	105 °C ³⁾	85 °C	95 °C	---	---	---
-40 °C ... 45 °C	80 °C	90 °C	100 °C	80 °C	90 °C	105 °C ^{2) 3)}	100 °C ⁴⁾	100 °C ⁴⁾
-40 °C ... 40 °C	75 °C	85 °C	95 °C	75 °C	85 °C	100 °C ²⁾	95 °C	95 °C

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

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BVS PP 18.2158 EU, as of 2023-12-13

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	V-CG-S driver
3L-1	1x LED-module 24 *** **	qTEK 10* - * (Low Power)	qTEK 20* - * (Mid Power) qTEK 30* - * (High Power)	qTEK 00*-*
4L-1	1x LED-module 36 *** **	qTEK 20* - * (Mid Power)	qTEK 30* - * (High Power)	
5L-1	1x LED-module 48 *** **	qTEK 20* - * (Mid Power)	qTEK 30* - * (High Power)	
5L-2	2x LED-module 24 *** **	qTEK 20* - * (Mid Power)	qTEK 30* - * (High Power)	
7L-2	2x LED-module 36 *** **	qTEK 30* - * (High Power)	---	
10L-2	2x LED-module	qTEK 40* - *	---	

	48 ** * ** *	(High Power Plus)		
3L-1 NE+	1x LED-module 24 ** * ** *	qTEK 30* - * (High Power)	---	---
5L-1 NE+	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}	3L-1 and 5L-2			4L-1, 5L-1 and 7L-2			10L-2			3L-1NE+ and 5L-1NE+		
	no TW	TW 10 A	TW 16 A	no TW	TW 10 A	TW 16 A	no TW	TW 10 A	TW 16 A	no TW	TW 10 A	TW 16 A
60 °C	70°C ₁₎	75°C ₁₎	85°C _{1) 3)}	NP	NP	NP	NP	NP	NP	NP	NP	NP
55 °C	70°C	70°C	80°C	70°C	75°C	85°C ₃₎	NP	NP	NP	NP	NP	NP
50 °C	70°C	70°C	75°C	70°C	70°C	80°C ₄₎	NP	NP	NP	NP	NP	NP
45 °C	70°C	70°C	70°C	70°C	70°C	75°C	70°C ₂₎	70°C ₂₎	75°C ₂₎	70°C	NP	NP
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 V-CG-S function is used
- 2) not possible for V-CG-S Variants
- 3) not permitted for alternative terminal
- 4) not permitted for alternative terminal (only type 5L-1)

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

T _{amb}	3L-1 and 5L-2			4L-1, 5L-1 and 7L-2			10L-2			3L-1NE+ and 5L-1NE+		
	no TW	TW 10 A	TW 16 A	no TW	TW 10 A	TW 16 A	no TW	TW 10 A	TW 16 A	no TW	TW 10 A	TW 16 A
60 °C	70°C ₁₎	75°C ₁₎	90°C _{1) 3)}	NP	NP	NP	NP	NP	NP	NP	NP	NP
55 °C	70°C	70°C	85°C	70°C	80°C	90°C ₃₎	NP	NP	NP	NP	NP	NP
50 °C	70°C	70°C	80°C	70°C	75°C	85°C ₄₎	NP	NP	NP	NP	NP	NP
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	NP	NP
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 V-CG-S function is used
- 2) not possible for V-CG-S Variants
- 3) not permitted for alternative terminal
- 4) not permitted for alternative terminal (only type 5L-1)

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 NE+ shall only be disconnected from the emergency supply unit VE+ (ExLin luminaire) when the luminaire is disconnected from the mains supply.

18 **Essential Health and Safety Requirements**

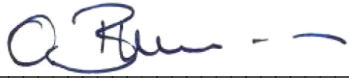
Met by compliance with the requirements mentioned in item 9.

19 **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, 2023-12-13
BVS-Kir/MGR A 20220274 / 342768300



Managing Director