IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx BVS 18.0028X**

Certificate history:
Issue 1 (2019-09-23)
Issue 0 (2018-10-15)

Status: **Current**

Issue No: 2

Date of Issue: 2019-12-04

Applicant: **Cooper Crouse-Hinds GmbH**
Neuer Weg-Nord 49
69412 Eberbach
Germany

Equipment: **Luminaire type ExLin **-* *-**-* *** *** */***

Optional accessory:

Type of Protection: **Intrinsic Safety "i", Optical Radiation, Powder Filling “q”, Increased Safety "e", Protection by Enclosure "t"**

Marking: Ex eb ib op is q IIC T4/T5 Gb
Ex op is tb IIIC T* Db
* See thermal data

Approved for issue on behalf of the IECEx Certification Body: **Jörg Koch**

Position: **Head of Certification Body**

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 www.iecex.com or use of this QR Code.

Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA
On the safe side.

IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 18.0028X**

Date of issue: 2019-12-04

Issue No: 2

Manufacturer: **Cooper Crouse-Hinds GmbH**
Neuer Weg-Nord 49
69412 Eberbach
Germany

Additional manufacturing locations: **S.C. Cooper Industries Romania S.R.L**
Zona Industriala Vest, Str. III, Nr. 12
310510 Arad
Romania

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-28:2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-5:2015 Explosive atmospheres –Part 5: Equipment protection by powder filling “q”
Edition:4.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with 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/BVS/ExTR18.0072/02

Quality Assessment Report:

DE/BVS/QAR11.0009/08

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Description

The Luminaire type ExLin **-* *-**-* *** *** */* consists of a basic housing made of plastic in type of protection Increased Safety "eb" resp. “tb”. One or two LED modules type ** *** ** * according to IECEx BVS 18.0029U 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" resp. “tb” containing circuits in type of protection Intrinsic Safety "ib" when used in combination with the driver module qTEK** *-* and as well as in type of Protection by Enclosure "tb".
The electrical supply is realized by the separately certified Driver Module type qTEK** *-* according to IECEx BVS 17.0005U 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" resp. “tb”.

Subject and Type

See Annex

Parameters

See Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:
See Annex

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- EPL Db is added
- V-CG-S function is added
- Type code is modified

Annex:

BVS_18_0028X_Cooper_Annex_issue_2.pdf

IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 18.0028X issue No.: 2**
Annex

Subject and Type

Luminaire type ExLin **-* *-**-* *** *** */*

3L-1 = 2400 lm
4L-1 = 3600 lm
5L-1 = 4800 lm
5L-2 = 4800 lm (2 modules 2400 lm)
7L-2 = 7200 lm (2 modules 3600 lm)

variants:
without = standard version
V-CG-S = with emergency control unit

different versions
without influence on explosion protection

wiring
1/6 = without through-wiring
2/6 = with through-wiring

Parameters

1. Electrical data

Input voltage	standard luminare	AC	110 V up to 277	V, 50/60 Hz or
		DC	110 V up to 277	V
	V-CG-S variant	AC	220 V up to 254	V, 50/60 Hz or
		DC	195 V up to 250	V
Output power (LED-modules)		22 W / 33 W / 44 W / 67 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. 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 all luminaires.

Luminaire	LED-module	Permitted drivers			
3L-1	1x LED-module 24 ** * ***	qTEK 10* - * (Low Power) [1)]	qTEK 20* - * (Mid Power)	qTEK 30* - * (High Power)	qTEK 00*-*
4L-1	1x LED-module 36 ** * ***	---	qTEK 20* - * (Mid Power)[1)]		
5L-1	1x LED-module 48 ** * ***	---			
5L-2	2x LED-module 24 ** * ***	---			
7L-2	2x LED-module 36 ** * ***	---	---	qTEK 30* - * (High Power)[1)]	

[1)] standard driver

2. Thermal data

2.1 EPL Gb

Permitted ambient temperature range	Luminaire 3L-1	Luminaire 4L-1	Luminaire 5L-1	Luminaire 5L-2	Luminaire 7L-2
-40 °C …+60 °C [1)]	T4	not permitted	not permitted	T4	not permitted
-40 °C …+55 °C	T4	T4	T4	T4	T4
-40 °C …+50 °C	T4	T4	T4	T4	T4
-40 °C …+45 °C	T4	T4	T4	T4	T4
-40 °C …+40 °C	T5 T4 for use of driver qTEK 00*-*	T4	T5 T4 for use of driver qTEK 00*-*	T5 T4 for use of driver qTEK 00*-*	T4

[1)] not permitted if driver qTEK 00*-* with V-CG-S function is used

2.2 EPL Db

Permitted ambient temperature range	Luminaire 3L-1	Luminaire 4L-1	Luminaire 5L-1	Luminaire 5L-2	Luminaire 7L-2
-40 °C …+60 °C [1)]	95 °C	not permitted	not permitted	95 °C	not permitted
-40 °C …+55 °C	90 °C	100 °C	110 °C	90 °C	100 °C
-40 °C …+50 °C	85 °C	95 °C	105 °C	85 °C	95 °C
-40 °C …+45 °C	80 °C	90 °C	100 °C	80 °C	90 °C
-40 °C …+40 °C	75 °C	85 °C	95 °C	75 °C	85 °C

[1)] not permitted if driver qTEK 00*-* with V-CG-S function is used

“Specific Conditions of Use”:

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

Luminaire	LED-module	Permitted drivers			
3L-1	1x LED-module 24 ** * ***	qTEK 10* - * (Low Power) [1)]	qTEK 20* - * (Mid Power)	qTEK 30* - * (High Power)	qTEK 00*-*
4L-1	1x LED-module 36 ** * ***	---	qTEK 20* - * (Mid Power)[1)]		
5L-1	1x LED-module 48 ** * ***	---			
5L-2	2x LED-module 24 ** * ***	---			
7L-2	2x LED-module 36 ** * ***	---	---	qTEK 30* - * (High Power)[1)]	

[1)] standard driver

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}	Luminaires 3L-1 and 5L-2			Luminaires 4L-1, 5L-1 and 7L-2		
	Without through-wiring	Through-wiring 10 A	Through-wiring 16 A	Without through-wiring	Through-wiring 10 A	Through-wiring 16 A
60 °C [1)]	70 °C	75 °C	85 °C	not permitted	not permitted	not permitted
55 °C	70 °C	70 °C	80 °C	70 °C	75 °C	85 °C
50 °C	70 °C	70 °C	75 °C	70 °C	70 °C	80 °C
45 °C	70 °C	70 °C	70 °C	70 °C	70 °C	75 °C
40 °C	70 °C	70 °C	70 °C	70 °C	70 °C	70 °C

[1)] not permitted if driver qTEK 00*-* with V-CG-S function is used

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}	Luminaires 3L-1 and 5L-2			Luminaires 4L-1, 5L-1 and 7L-2		
	Without through-wiring	Through-wiring 10 A	Through-wiring 16 A	Without through-wiring	Through-wiring 10 A	Through-wiring 16 A
60 °C [1)]	70 °C	75 °C	90 °C	not permitted	not permitted	not permitted
55 °C	70 °C	70 °C	85 °C	70 °C	80 °C	90 °C
50 °C	70 °C	70 °C	80 °C	70 °C	75 °C	85 °C
45 °C	70 °C	70 °C	75 °C	70 °C	70 °C	80 °C
40 °C	70 °C	70 °C	70 °C	70 °C	70 °C	75 °C

[1)] not permitted if driver qTEK 00*-* with V-CG-S function is used

4. The luminaire shall only be cleaned with a damp cloth.

5. The LED Module shall not be used in areas with electrostatically intense charging processes.