



1 EU-TYPE EXAMINATION CERTIFICATE

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: Sira 13ATEX5270X Issue: 9

4 Equipment: Type K30L and K50L LED Indicator Lights

5 Applicant: Banner Engineering Corporation

6 Address: 9714 Tenth Avenue North

Minneapolis Minnesota 55441

USA

- 7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018

EN 60079-18: 2015/A1:2017

EN 60079-31:2014

- If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.
- This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.
- 12 The marking of the equipment shall include the following:



II 2G Ex mb IIC T4 Gb Ta = -40° C to $+50^{\circ}$ C



II 1D

Ex ta IIIC T200 135°C Da

Signed: Michelle Halliwell

Title: Director of Operations



Project Number 80074939

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SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

Type K30L and K50L LED Indicator Lights comprise LEDs mounted on a printed circuit board, all encapsulated within a plastic housing with a translucent dome. The Type K50L is physically larger than the K30L having more LEDs mounted on the PCB than the K30L. The indicator lights have an integral cable fitted for the electrical connections.

The equipment has the following electrical parameters:

Vmax = 30 V

Imax = 25 mA

Variation 1 - This variation introduced the following change:

i. The specification of the material used for the K30 and K50 LED indicator covers was changed, one of the options being removed.

Variation 2 - This variation introduced the following change:

- i. A number of editorial changes to the documentation.
 - Replace drawing 126905 with drawing 164906
 - Replace drawing 133593 with drawing 164905.
 - Remove document 173494 from the drawing list.

Variation 3 - This variation introduced the following changes:

- i. The use of an alternative encapsulation material was approved.
- ii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079 31:2009 and EN 60079-18:2009 were replaced by EN 60079-18:2015 and EN 60079-31:2014.

Variation 4 - This variation introduced the following changes:

- i. The recognition of minor drawing modifications; these amendments do not affect the aspects of the product that are relevant to explosion safety.
- ii. Standard EN 60079-0:2012 was updated to EN 60079-0:2012/A11:2013.

Variation 5 - This variation introduced the following change:

 Drawing 173292 has been revised from rev A to rev B to update the cable details for the LED Indicator lights.

Variation 6 - This variation introduced the following change:

 A number of editorial changes not affecting compliance have been made to drawings for the LED Indicator lights.

Variation 7 - This variation introduced the following changes:

- i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2012/A11:2013 & EN 60079-18:2015 were replaced by EN IEC 60079-0:2018 and EN 60079-18:2015/A1:2017. Where applicable, the markings were updated accordingly to recognise the new standards.
- ii. Drawing/Documentation update.





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- 14 DESCRIPTIVE DOCUMENTS
- 14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	24 July 2013	R26812B/00	The release of the prime certificate.
1	12 February 2014	R26812B/01	Report no. R26812B/00 was replaced by R26812B/01.
2	07 July 2015	R70034003A	The introduction of Variation 1.
3	06 March 2017	R70115581A	This Issue covers the following changes:
			EC Type-Examination Certificate in accordance
			with 94/9/EC updated to EU Type-Examination
			Certificate in accordance with Directive
			2014/34/EU. (In accordance with Article 41 of Directive
			2014/34/EU, EC Type-Examination Certificates referring to
			94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they
			were issued in accordance with Directive 2014/34/EU.
			Variations to such EC Type-Examination Certificates may
			continue to bear the original certificate number issued prior to 20 April 2016.)
			The introduction of Variation 2.
4	11 July 2017	R70115798A	The introduction of Variation 3.
5	24 April 2018	R70177521A	This Issue covers the following changes:
3	24 April 2010	K/OT//JZTA	 A typographical error in the listed Variation
			numbers was corrected.
			The introduction of Variation 4.
6	12 September 2018	R70188875A	The introduction of Variation 5.
7	04 February 2019	R70205810A	The introduction of Variation 6.
8	15 October 2019	0346	Transfer of certificate Sira 13ATEX5270X from Sira
			Certification Service to CSA Group Netherlands B.V.
9	26 July 2022	R80074932A	The introduction of Variation 7.

- 15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)
- 15.1 Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
- 15.2 Ex ta requires that the prospective short circuit current of the supply must not exceed 10kA.
- 15.3 The equipment has been evaluated to IEC / EN 60079-0 Table 15, Resistance to Impact, as a low risk of mechanical damage. If the installation has a high risk of impact, the user must take suitable precautions to provide protection from impact.





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16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

Certificate Annexe

Certificate Number: Sira 13ATEX5270X



Applicant: Banner Engineering Corporation



Issue 0

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
172927	1 to 8	В	17 Jul 13	DWG K30L Exmb Final Assembly
169015	1 of 1	В	12 Jul 13	K30L potting procedure
133592	1 of 1	D	12 Jul 13	Base K30 EZ Light
133593	1 of 1	Α	12 Jul 13	Cover K30 EZ Light
145878	1 of 1	Α	12 Jul 13	Foam spacer EZ Light K30L
133594	1 of 1	Α	12 Jul 13	Nut M22 1.5
133595	1 of 1	Α	12 Jul 13	Washer assembly
119759	1 of 1	-	12 Jul 13	PCB RAW panel (dimensions), T18 EZ light – K30L
172719	1 of 1	Α	17 Jul 13	Schematic diagram K30L Exmb EZ light
172727	1 and 2	Α	17 Jul 13	PCB assy, EZ LGT PNP3E GRY Exmb (172718)
172727	1 of 1	Α	17 Jul 13	PCB assy, EZ LGT PNP3E GRY Exmb (172718)
172718	1 and 2	Α	17 Jul 13	PCB RAW, K30L Exmb EZ light
172718	1 to 4	Α	17 Jul 13	PCB K30L track and component layout
172926	1 to 7	В	17 Jul 13	DWG K50L, Exmb Final assembly
169014	1 of 1	В	12 Jul 13	K50L, IS potting procedure, QD
168051	1 of 1	В	12 Jul 13	K50L, IS potting procedure, flying lead
162904	1 of 1	С	12 Jul 13	Base K50 IS Black mounting base
126905	1 of 1	E	12 Jul 13	Cover K50 EZ Light
08249	1 of 1	Н	12 Jul 13	Nut M30 X 1.5
172729	1 of 1	Α	17 Jul 13	Schematic diagram K50L Exmb EZ light
172737	1 and 2	Α	17 Jul 13	PCB assy, K50L, EZ LGT PNP3E GRY Exmb (172728)
172737	1 of 1	Α	17 Jul 13	PCB BOM, PCB assy, K50L, EZ LGT PNP3E GRY Exmb
172728	1 and 2	Α	17 Jul 13	PCB RAW, K50L Exmb EZ light
128145	1 of 1	Α	12 Jul 13	PCB RAW Panel (dimensions) K50L
172728	1 to 4	Α	17 Jul 13	PCB K50L track and component layout
173292	1 of 1	Α	12 Jul 13	Flying lead
172443	1 of 1	Α	19 Jul 13	K30/K50 Hazardous Area Exm Markings ATEX/IECEx
173494	1 of 1	Α	17 Jul 13	Encapsulant specification

Issue 1

The following drawing was removed:

Drawing No	. Sheets	Rev.	Date (Sira stamp)	Title
172443	1 of 1	Α	19 Jul 13	K30/K50 Hazardous Area Exm Markings ATEX/IECEx

The following drawing was introduced:

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
171656	1 of 1	С	12 Feb 14	K30L/K50L Hazardous Area Markings

Issue 2

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
164905	1 of 1	В	29 Jun 15	Cover K30 IS Light
164906	1 of 1	F	29 Jun 15	Cover K50 IS light

Issue 3

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
08249	1 of 1	I	09 Feb17	Nut M30 X 1.5
164906	1 of 1	Н	09 Feb17	Cover K50 IS EZ Light 2 nd GEN

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Drawing	Sheets	Rev.	Date(Sira stamp)	Title
133592	1 and 2	Н	09 Feb17	Base K30 EZ Light
164905	1 of 1	С	09 Feb17	Cover K30 EZ Light
133594	1 of 1	В	09 Feb17	Nut M22 1.5
162904	1 of 1	D	09 Feb17	Base K50 IS Black M30x1.5 mounting base
172729	1 of 1	В	09 Feb17	Schematic diagram K50L Exmb EZ light
169015	1 and 2	С	17 Feb 17	K30L Potting Procedure

Notes

Drawing 126905 has been made obsolete and replaced by drawing 164906.

Document 173494 is the encapsulant specification and has been removed from the drawing list but is retained in the project file.

Drawing 133593 has been replaced by 164905.

Refer to section 3 for up issue details of all of the drawings listed above.

Issue 4

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
168051	1 to 2	С	19 Jun 17	Proc Potting K50L Hazardous Environment Cable Final Assy
169014	1 to 2	С	19 Jun 17	Proc Potting K50L Hazardous Environment QD Final Assy
169015	1 to 2	D	19 Jun 17	Proc Potting K30L Hazardous Environment Final Assy

Issue 5

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
08249	1 of 1	K	04 Apr 18	Nut M30 X 1.5
133592	1 to 2	I	04 Apr 18	Base K30 EZ Light
133594	1 of 1	С	04 Apr 18	Nut M22 1.5
164906	1 of 1	J	04 Apr 18	Cover K50 IS EZ Light 2 nd GEN
172729	1 of 1	D	04 Apr 18	Schematic diagram K50L Exmb EZ light

Issue 6

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
173292	1 of 1	В	14 Aug 18	Cable

Issue 7

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
172719	1 of 1	В	22 Jan 19	Schematic diagram K30L Exmb EZ light
172728	1 of 1	В	22 Jan 19	PCB RAW, K50L Ex mb EZ Light
172729	1 of 1	Ε	22 Jan 19	Schematic diagram K50L Ex mb EZ light
169015	1 and 2	E	22 Jan 19	Proc potting K30L Hazardous Environment Final assembly
133592	1 and 2	J	22 Jan 19	Base K30 EZ Light
133594	1 of 1	D	22 Jan 19	Nut M22 X 1.5

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
133592	1 to 2	K	27 Apr 22	Base K30 EZ Light
168051	1 to 3	D	27 Apr 22	Proc Potting K50L Hazardous Environment Cable Final
				Assy
169014	1 to 3	E	27 Apr 22	Proc Potting K50L Hazardous Environment QD Final Assy
171656	1 of 1	D	27 Apr 22	K30L/K50L Hazardous Area Markings
172927	1 to 8	С	27 Apr 22	DWG K30L Exmb Final Assembly
173292	1 of 1	С	27 Apr 22	Cable

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Certificate Annexe

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Drawing	Sheets	Rev.	Date (Stamp)	Title
217424*	1 & 2	L	27 Apr 22	Dwg Hex Nut with Knurl M30 x 1.5