1 **TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 13ATEX4271X** 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., certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of Category 3 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 60079-15: 2010 EN 60079-31:2014

10 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.

11 This Type Examination Certificate relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured. 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 3G
Ex nA IIC T4 Gc
Ta = -40°C to +50°C

II 3D
Ex tc IIIC T135°C Dc

Signed: Michelle Halliwell

Title: Director of Operations

PRODUCTS
RvA C 652

BANNER P/N
1807 REV. H

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

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 either a screw on plug and socket connector or 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.

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 was replaced by 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:

i. 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:

i. A number of editorial changes not affecting compliance have been made to drawings for the LED Indicator lights.
iii. EN 60079-31:2009 was replaced by EN 60079-31:2014.

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 was replaced by EN IEC 60079-0:2018.
ii. Drawing/Documentation update.
iii. Update of Specific Condition of Use 3) relating to the ingress protection of connector when installed to clarify the requirements of EN IEC 60079-0:2018 must be met.

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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 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: • Type Examination Certificate in accordance with 94/9/EC updated to Type Examination Certificate in accordance with Directive 2014/34/EU. *(In accordance with Article 41 of Directive 2014/34/EU, 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 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	R7011578A	The introduction of Variation 3.
5	24 April 2018	R70177521A	This Issue covers the following changes: • A typographical error in the Certificate history 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	0345	Transfer of certificate Sira 13ATEX4271X 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 The 30 V rated supply shall be protected such that transients are limited to a maximum of 42 V.

15.3 The connector must be protected when installed, to maintain IP6X ingress protection in accordance with IEC 60079-0:2017 / EN IEC 60079-0: 2018.

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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 Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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Certificate Annexe

Certificate Number: **Sira 13ATEX4271X**

Equipment: **Type K30L and K50L LED Indicator Lights**

Applicant: **Banner Engineering Corporation**

Issue 0

Drawing No.	Sheets	Rev	Date (Sira stamp)	Title
169013	1 to 8	B	12 Jul 13	DWG K30L IS Final Assembly
169015	1 of 1	B	12 Jul 13	K30L potting procedure
133592	1 of 1	D	12 Jul 13	Base K30 EZ Light
133593	1 of 1	A	12 Jul 13	Cover K30 EZ Light
145878	1 of 1	A	12 Jul 13	Foam spacer EZ Light K30L
133594	1 of 1	A	12 Jul 13	Nut M22 1.5
133595	1 of 1	A	12 Jul 13	Washer assembly
158033	1 of 1	A	12 Jul 13	Schematic diagram K30L EZ light Intrinsically safe
158034	1 to 2	A	12 Jul 13	PCB assy, K30L Intrinsically safe 3 colour
158034	1 of 1	A	12 Jul 13	PCB BOM, Intrinsically safe 3 colour
158032	1 of 1	B	12 Jul 13	PCB RAW, K30L Intrinsic Safe EZ light
119759	1 of 1	-	12 Jul 13	PCB RAW panel (dimensions), T18 EZ light – K30L
158032	1 to 4	B	12 Jul 13	PCB K30L track and component layout
169012	1 to 7	B	12 Jul 13	K50L, IS Final assembly
169014	1 of 1	B	12 Jul 13	K50L, IS potting procedure, QD
168051	1 of 1	B	12 Jul 13	K50L, IS potting procedure, flying lead
162904	1 of 1	C	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	H	12 Jul 13	Nut M30 X 1.5
158252	1 of 1	A	12 Jul 13	Schematic diagram K50L EZ light Intrinsically safe
158358	1 to 2	A	12 Jul 13	PCB assy, K50L Intrinsically safe 3 colour
158358	1 of 1	A	12 Jul 13	PCB BOM, K50L Intrinsically safe 3 colour
158251	1 of 1	B	12 Jul 13	PCB RAW, K50L Intrinsic Safe EZ light
128145	1 of 1	A	12 Jul 13	PCB RAW Panel (dimensions) K50L
158251	1 to 4	B	12 Jul 13	PCB K50L track and component layout
173292	1 of 1	A	21 Jun 13	Flying lead
172444	1 of 1	A	19 Jul 13	K30/K50 Hazardous Area ExnA/ta Markings ATEX/IECEx

Issue 1

The following drawing was removed:

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
172444	1 of 1	A	19 Jul 13	K30/K50 Hazardous Area ExnA/ta Markings ATEX/IECEx

The following drawing was introduced:

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
171657	1 of 1	C	12 Feb 14	K30L/K50L Hazardous Area Markings

Issue 2

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
164905	1 of 1	B	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	H	09 Feb17	Cover K50 IS EZ Light 2nd GEN
133592	1 and 2	H	09 Feb17	Base K30 EZ Light

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Certificate Annexe

Certificate Number: **Sira 13ATEX4271X**

Equipment: **Type K30L and K50L LED Indicator Lights**

Applicant: **Banner Engineering Corporation**

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
164905	1 of 1	C	09 Feb17	Cover K30 EZ Light
133594	1 of 1	B	09 Feb17	Nut M22 1.5
158033	1 of 1	I	09 Feb17	Schematic diagram K30L EZ light Intrinsically safe
158252	1 of 1	F	09 Feb17	Schematic diagram K50L EZ light Intrinsically safe
162904	1 of 1	D	09 Feb17	Base K50 IS Black M30x1.5 mounting base
169015	1 and 2	C	17 Feb 17	K30L Potting Procedure

Notes
Drawing 126905 has been made obsolete and replaced by drawing 164906.
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	C	19 Jun 17	Proc Potting K50L Hazardous Environment Cable Final Assy
169014	1 to 2	C	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	C	04 Apr 18	Nut M22 1.5
164906	1 of 1	J	04 Apr 18	Cover K50 IS EZ Light 2nd GEN

Issue 6

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

Issue 7

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
158252	1 of 1	I	22 Jan 19	Schematic diagram K50L 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 8. No new drawings were introduced

Issue 9

Drawing	Sheets	Rev.	Date (Stamp)	Title
133592	1 to 2	K	27 Apr 22	Base K30 EZ Light
158033	1 of 1	K	27 Apr 22	Schematic Diagram K30L EZ light Intrinsic Safety
158252	1 of 1	J	27 Apr 22	Schematic Diagram K50L EZ light Intrinsic Safety
168051	1 to 3	D	27 Apr 22	Proc Potting K50L Hazardous Environment Cable Final Assy
169013	1 to 8	C	27 Apr 22	DWG K30L IS Final Assembly
169014	1 to 3	E	27 Apr 22	Proc Potting K50L Hazardous Environment QD Final Assy
171657	1 of 1	D	27 Apr 22	K30/K50L Hazardous Area EXNA/EXTC Markings – ATEX, CSA – C/US & IECEx
173292	1 of 1	C	27 Apr 22	Cable
217424*	1 & 2	L	27 Apr 22	Dwg Hex Nut with Knurl M30 x 1.5

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