Certificate of Compliance

Certificate: 2679646 **Master Contract:** 150323

Project: 80051475 **Date Issued:** 2020-10-19

Issued To: **Banner Engineering Corporation**
9714 Tenth Ave N
Minneapolis, Minnesota, 55441
United States

Attention: Mike Carlson

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Issued by: *Semyon Baum*
Semyon Baum

C US

PRODUCTS

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations
CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations - Certified to US Standards

Class I, Div. 1, Groups A, B, C and D; Class II, Div. 1, Groups E, F and G; Class III, Div. 1;
Class I Zone 0 AEx/Ex ia IIC T4 Ga; Class II Zone 20 AEx/Ex ta IIIC T130°C Da:

Type K30LI and K50LI LED Indicator Lights; Entity Parameters Ui = 30 V; Ii = 1 A; Pi = 3.4 W @ 40˚C upper ambient; Pi = 2.8 W @ 50˚C upper ambient; Ci = 0; Li = 0. Tamb = -40°C to +40°C or +50°C as above. Intrinsically Safe per Control Document No. 172445.

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations
CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to U.S. Standards

BANNER P/N
1811 REV. C

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ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Class II, Div. 1, Groups E, F and G; Class III, Div. 1;
Class I Zone 1 AEx/Ex mb IIC T4 Gb; Class II Zone 20 AEx/Ex ta IIIC T135°C Da:

Type K50LM LED Indicator Lights; Vmax = 30 V; Imax = 25 mA; Tamb = -40°C to +50°C. Install per Control Document No. 171982.

Class I Zone 1 AEx/Ex mb IIC T4 Gb:

Type K30LM LED Indicator Lights; Vmax = 30 V; Imax = 25 mA; Tamb = -40°C to +50°C. Install per Control Document No. 171982.

Class I, Div. 2, Groups A, B, C and D; Class II, Div. 2, Groups E, F and G; Class III, Div. 2;
Class I Zone 2 AEx/Ex nA IIC T4 Gc; Class II Zone 22 AEx/Ex tc IIIC T135°C Dc:

Type K50LN LED Indicator Lights; Vmax = 30 V; Imax = 25 mA; Tamb = -40°C to +50°C. Install per Control Document No. 171983.

Class I, Div. 2, Groups A, B, C and D;
Class I Zone 2 AEx/Ex nA IIC T4 Gc:

Type K30LN LED Indicator Lights; Vmax = 30 V; Imax = 25 mA; Tamb = -40°C to +50°C. Install per Control Document No. 171983.

CONDITIONS OF ACCEPTABILITY

- 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. This is particularly important if the equipment is installed in a Zone 0 location. In addition, the equipment shall only be cleaned with a damp cloth. This is particularly important if the equipment is installed in a Zone 0 location.
- The connector option requires protection to the connector when installed (Ex nA versions only). The connector should not be connected/disconnected while the area is known to be hazardous.

APPLICABLE REQUIREMENTS

Standards	
CAN/CSA-C22.2 No. 0-M91 (R2011)	General Requirements – Canadian Electrical Code, Part II
CSA Ordinary Locations Standards	
CAN/CSA-C22.2 No. 61010-1-12 (2018)	Safety requirements for electrical equipment for measurement, control, and laboratory use — Part 1: General requirements
CSA Hazloc Division Standards	
C22.2 No. 25-1966 (R2009)	Enclosures for Use in Class II, Groups E, F and G Hazardous Locations

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CAN/CSA-C22.2 No. 157-92 (R2006)	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations
C22.2 No. 213-M1987 (R2008)	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CSA Hazloc Zone Standards	
CAN/CSA-C22.2 No. 60079-0:11 Ed. 5	Explosive Atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 No. 60079-11:11 Ed. 5	Explosive Atmospheres – Part 11: Equipment protection by intrinsic safety "i"
CAN/CSA-C22.2 No. 60079-15:12 Ed. 3	Electrical apparatus for explosive gas atmospheres - Part 15: Construction, test and marking of type of protection “n” electrical apparatus
CAN/CSA-C22.2 No. 60079-18:12 Ed. 1	Explosive Atmospheres – Part 18: Equipment protection by encapsulation "m"
CAN/CSA-C22.2 No. 60079-31:12 Ed. 1	Explosive Atmospheres – Part 31: Equipment dust ignition protection by enclosure "t”
US Ordinary Locations standards	
UL 61010-1, 3rd Edition	Safety requirements for electrical equipment for measurement, control, and laboratory use — Part 1: General requirements
US Hazloc Division Standards	
UL 913 (7th Ed.)	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III, Division 1, Hazardous Locations
UL 1203 (4th Ed.) (Pt 2 only)	Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations
ANSI/ISA-12.12.01-2012	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
US Hazloc Zone Standards	
UL 60079-0:09	Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements
UL 60079-11:09	Electrical apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety “i”
UL 60079-15:09	Electrical apparatus for Explosive Gas Atmospheres - Part 15: Type of Protection “n”
UL 60079-18:12	Explosive Atmospheres – Part 18: Equipment protection by encapsulation "m"
ANSI/ISA-60079-31 (12.10.03)-2009	Explosive Atmospheres – Part 31: Equipment Dust Protection by Enclosure “t”

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

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Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Marking to include:

- Company name;
- Company address;
- Serial number;
- Install control document number;
- CSA Monogram;
- Any markings as per ‘PRODUCT’ section of this report.

Note: Due to the small size of the products extra installation information for the product is detailed in the install control diagram listed on the label.

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Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80051475	2020-10-19	1. FIR follow-up, update to report 2679646 for non-conformance issues noted in (FC# 150324) May 7, 2020, revised descriptive prints needed. 2. Encapsulation material mentioned in FIR was approved in Sira R70115581A, which also covers all mentioned drawing updates. 3. Update from C22.2 No. 142 to C22.2 No. 61010-1. 4. All required assessment deviations necessary to support the associated IECEx and ATEX Variations listed below are addressed under this project. A copy of these reports is held in the project folder for further information. R70115581A, R70115798A, R70177521A, R70188875A and R70205810A 5. Additional letter included to the model to lessen confusion on models covered
000070188876	2018-08-29	Variation to K30L and K50L LED Indicators, CSA file 2679646. To determine the maximum allowable cable length for the LED Indicators. Assumes no testing is required. No Ordloc included in this quote as it is not required.
000070030638	2015-07-07	Variation to K30L and K50L LED light indicators. Drawing modifications
0002679646	2014-01-10	Original certification of Type K30L and K50L LED Indicator Lights

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