

INSTRUCTION & SERVICE MANUAL E2xB10UL BEACONS For Use In <u>Hazardous Locations</u>

- 10 Joules
- Type 4 / 4X / 13
- Operating Temperature Range -20°C to +55°C



Unit Type No. E2xB10UL

Input Voltages: DC Units 24V or 48V

AC Units 120V or 230V 50/60Hz

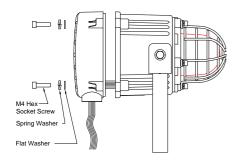
Max. Operating Temperature / Code at +55°C Ambient			
Hazardous Location	Temperature Code		
Class I, Division 2, Groups A, B, C, D	T2A (280°C)		
Class II, Division 2, Groups F and G	T4A (120°C)		
Class III, Divisions 1 and 2	T4A (120°C)		

Max. Operating Temperature / Code at +40°C Ambient			
Hazardous Location	Temperature Code		
Class I, Division 2, Groups A, B, C, D	T2A (280°C)		
Class II, Division 2, Groups F and G	T5 (100°C)		
Class III, Divisions 1 and 2	T5 (100°C)		

The equipment is suitable for use in the hazardous locations listed above or non-hazardous locations only.

PRE-INSTALLATION

WARNING - The E2xB10UL beacon is supplied with flying leads so it should not be necessary to open the unit before it is installed.

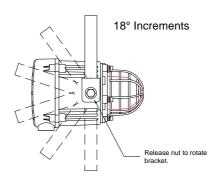


WARNING – NOT TO BE USED AS A VISUAL PUBLIC MODE NOTIFICATION APPLIANCE

WARNING – HIGH VOLTAGE SHOCK HAZARD.
WAIT 5 MINUTES AFTER REMOVING
POWER BEFORE OPENING THE
ENCLOSURE

MOUNTING

The E2xB10UL beacon must be mounted using the rotating bracket as shown.



WARNING - EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, II DIVISION 2.

WIRING INSTALLATION

The E2xB10UL beacon is provided with 2 off M20 x 1.5 cable entries.

1 x 1/2" NPT adaptor and 1 x M20 stopping plug are provided.

Installation using Field Wiring Leads and Conduit

If the sounder is supplied pre-wired with flying leads, these are colour coded and should be connected as shown in the diagram below.

The conduit running from the supply to the sounder must include an equipment grounding conductor that is at earth potential to facilitate ground connection of the device. A number of sounders can be connected in a chain to the same supply using field installed wiring compartments that are appropriate for the hazardous location, provided that the conductor at earth potential can be readily connected to the ground lead on each sounder in the chain.

Installation using Cable Glands without Field Wiring Leads

If the sounder is supplied without field wiring leads, the cable connections are made into the terminal blocks on the electronic PCB assembly. Terminal blocks are suitable for field wiring (AWG 18-12). Strain relief has to be ensured by installation with a suitable cable gland. Follow the markings for the terminals on the PCB and install wiring as shown in the diagram below.

Cable glands need to be UL certified to ANSI/UL 2225 or C22.2 NO. 174-M1984. and to UL514B / CSA-C22.2 No. 18.3-12, ratings for hazardous locations must be equal to or better than the rating of the sounder used.

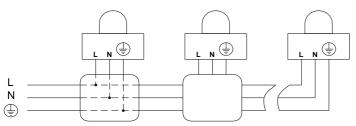
If a high IP (Ingress Protection) rating is required then a suitable sealing washer must be fitted under the cable gland.

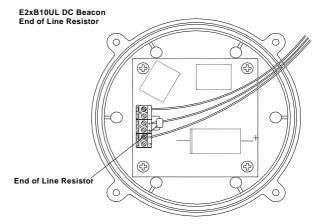
WARNING - ALL ELECTRICAL WIRING MUST BE INSTALLED IN ACCORDANCE TO THE NATIONAL ELECTRICAL CODE

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AC BEACONS

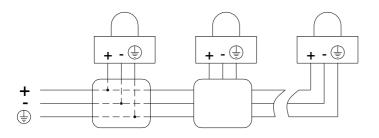
Black Live White Neutral Green/Yellow Ground





DC BEACONS

Red Positive Black Negative Green/Yellow Ground



POWER SUPPLY SELECTION

It is important that a suitable power supply is used to run the beacons. The power supply selected must have the necessary capacity to provide the input current to all of the beacons connected to the system.

Unit Type	Input Voltage	Input Current	Max. I/P Volts
E2xB10UL	24V DC	560mA	30V
E2xB10UL	48V DC	260mA	58V
E2xB10UL	230V 50/60Hz AC	107mA	253V
F2xB10UI	120V 50/60Hz AC	185mA	132V

END OF LINE MONITORING

On E2xB10UL DC units, dc reverse line monitoring can be used if required. All DC beacons have a blocking diode fitted in their supply input lines. An end of line monitoring resistor can be connected across the +ve and –ve terminals. If an end of line resistor is used it must have the following values:-

24V DC Beacons

Minimum Resistance 3k9 ohms
Minimum Resistance 1k ohms
Minimum wattage 0.5W
Minimum wattage 2.0W

48V DC Beacons

Minimum Resistance 15k ohms
Minimum wattage 0.5W
Minimum Resistance 3k9 ohms
Minimum wattage 2.0W

The resistor must be connected directly across the +ve and – ve terminals as shown in the following drawing. Whilst keeping its leads as short as possible, a spacing of at least 1/16 inch (1.58mm) must be provided through air and over surfaces between uninsulated live parts.

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