



NOTE

All numerical values are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters. Unless otherwise specified, dimensions have a tolerance of ± 0.13 and angles have a tolerance of $\pm 2^\circ$. Figures and illustrations are for identification only and are not drawn to scale.

1. INTRODUCTION

This specification covers the requirements for application of LUMAWISE Z32 LED holder. The LED holder allows direct attachment of the LED to a cooling device using two customer-supplied M2x6-mm (minimum) mounting screws and provides poke-in termination to electrically connect the LED. The LED holder is available for single contact beam connection and two parallel contact beam connection.

The LED holder features an LED opening with two LED clamping springs, two wire entrance holes that can be used separately or simultaneously, one or two poke-in contacts per wire entrance hole, a stranded wire insertion feature for each wire entrance hole, and two screw holes that each accept a screw for mounting. The LED opening accepts the LED, and an embossed LED minus (-) polarity indicator on the top and on the bottom of the LED holder indicates orientation of the LED. The stranded wire insertion feature is used to help achieve proper insertion depth of a stranded wire.

When corresponding with personnel, use the terminology provided in this specification to facilitate inquiries for information. Basic terms and features of this product are provided in Figure 1.

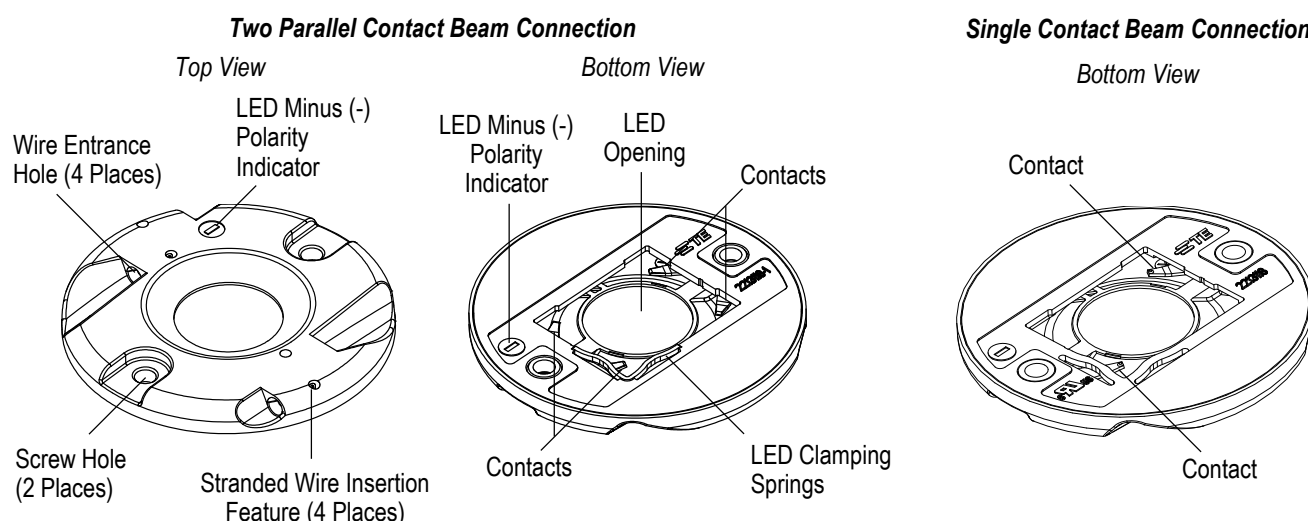


Figure 1

2. REFERENCE MATERIAL

2.1. Revision Summary

Revisions to this application specification include:

- Changed name of holder, and added single contact beam holder
- Added text to Paragraph 3.1, modified Paragraph 3.4, and added CAUTION to Paragraph 3.5

2.2. Customer Assistance

Reference Product Base Part Number 2213118 and Product Code L836 are representative of LUMAWISE Z32 LED holder. Use of these numbers will identify the product line and help you to obtain product and tooling information. Such information can be obtained through a local Representative, by visiting our website at www.te.com, or by calling PRODUCT INFORMATION or the TOOLING ASSISTANCE CENTER at the numbers at the bottom of this page.

2.3. Drawings

Customer Drawings for product part numbers are available from the service network. If there is a conflict between the information contained in the Customer Drawings and this specification or with any other technical documentation supplied, call PRODUCT INFORMATION at the number at the bottom of page 1.

2.4. Specifications

Product Specification 108-133006 provides product performance and test information.

2.5. Instructional Material

Instruction Sheets (408-series) provide product assembly instructions. There are no instruction sheets available that pertain to this product.

3. REQUIREMENTS

3.1. Safety

Do not stack product shipping containers so high that the containers buckle or deform.

It is recommended using the LED holder (in combination with the LED) with low-voltage low energy circuits supplied from a class 2 or low-voltage limited energy (LVLE) power source.

3.2. Storage

The LED holders should remain in the shipping containers until ready for use to prevent deformation to the contacts. The LED holders should be used on a first in, first out basis to avoid storage contamination that could adversely affect performance.

3.3. Wire Selection and Preparation

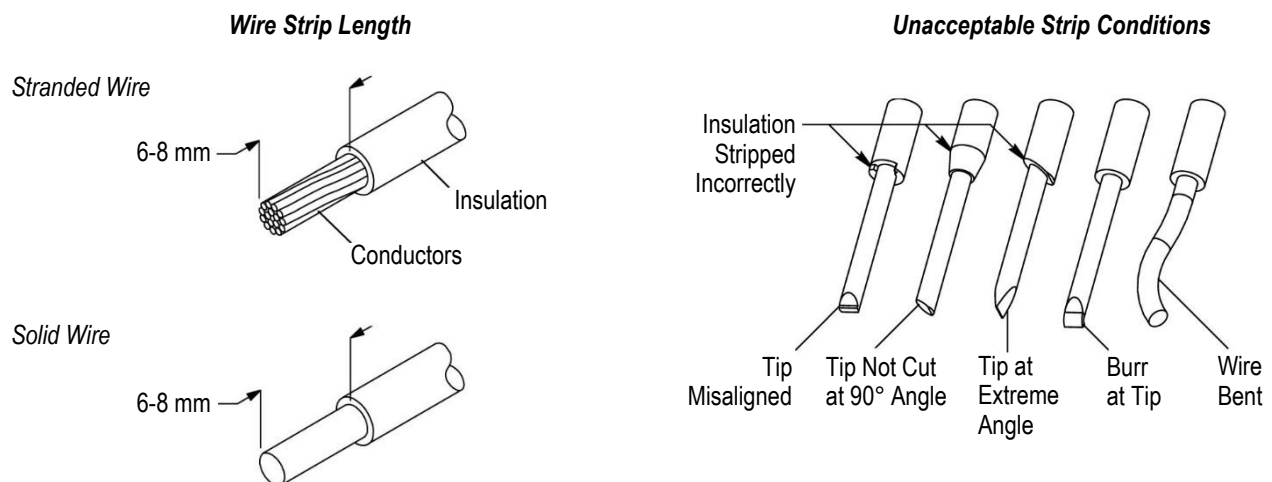
The LED holder accepts stranded, solid, or fused wire sizes 22 to 20 AWG. It is recommended to use Underwriters Laboratories Inc. (UL) Appliance Wiring Material (AWM) Style 1007 or 1061. The wire must be stripped within the dimensions provided in Figure 2.

For stranded wire, it is recommended to twist the strands after stripping for ease when inserting the wire into the socket wire entrance hole.



CAUTION

Wire conductors must not be nicked, cut, or scrapped during or after the stripping operation.



Fused Wire Not Shown; Same Strip Length Applies

Figure 2

3.4. Mounting Hole Pattern

The cooling device must be clean and flat with no crowns or peaks in the mounting area. The recommended mounting hole pattern (not to scale) is provided on the customer drawing for the LED holder and is shown in Figure 3.

After the holes are drilled and tapped, the surface must be cleaned with isopropyl alcohol. It is recommended to install a paste or phase-change type thermal interface material (TIM) onto the LED area of the cooling device. For optimal selection of the TIM, the physical behavior at extreme temperature, mechanical versus thermal performance, heat sink choice and quality, and thermal requirements from the LED manufacturer must be considered.

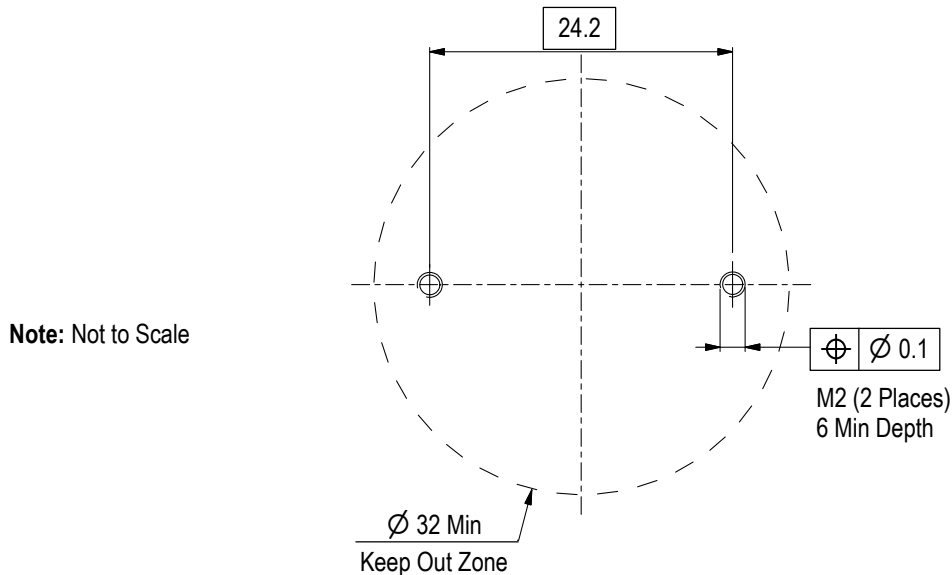


Figure 3

3.5. Assembly



CAUTION

The LED holder is designed for use in a ventilated environment that allows volatile organic compound (VOC) escaping. To avoid damage to the LED, reflection of LED light from a diffuser directly onto the surface of the LED holder must be prevented as much as possible.

1. The LED must be positioned in the LED opening of the LED holder so that one corner is against the LED clamping springs. The LED minus (-) polarity indicator must be observed when orienting the LED into the LED opening. Then, the LED must be inserted until the LED clamping springs hold it in place. See Figure 4, Details A and B.



CAUTION

To avoid damage to the LED, the LED must be properly positioned and seated in the LED holder. If not, the LED could crack when mounting the LED holder to the cooling device.

2. The LED holder (bottom side) must be placed on the cooling device so that the screws holes align over the holes in the cooling device. The LED holder must be secured to the cooling device using two customer-supplied M2x6-mm (minimum) mounting screws. Each mounting screw should be tightened to a torque between 0.15 and 0.25 Nm [1.33 and 2.21 in.-lb]. See Figure 4, Detail C.
3. The stripped end of each wire must be inserted into a wire entrance hole of the LED holder until it bottoms. See Figure 4, Detail D.

If using stranded wire, it is recommended to use the tip of a small 1-mm diameter punch to gently push down the stranded wire insertion feature adjacent to the wire entrance hole being used when inserting the stranded wire to ensure proper insertion depth of the stranded wire.

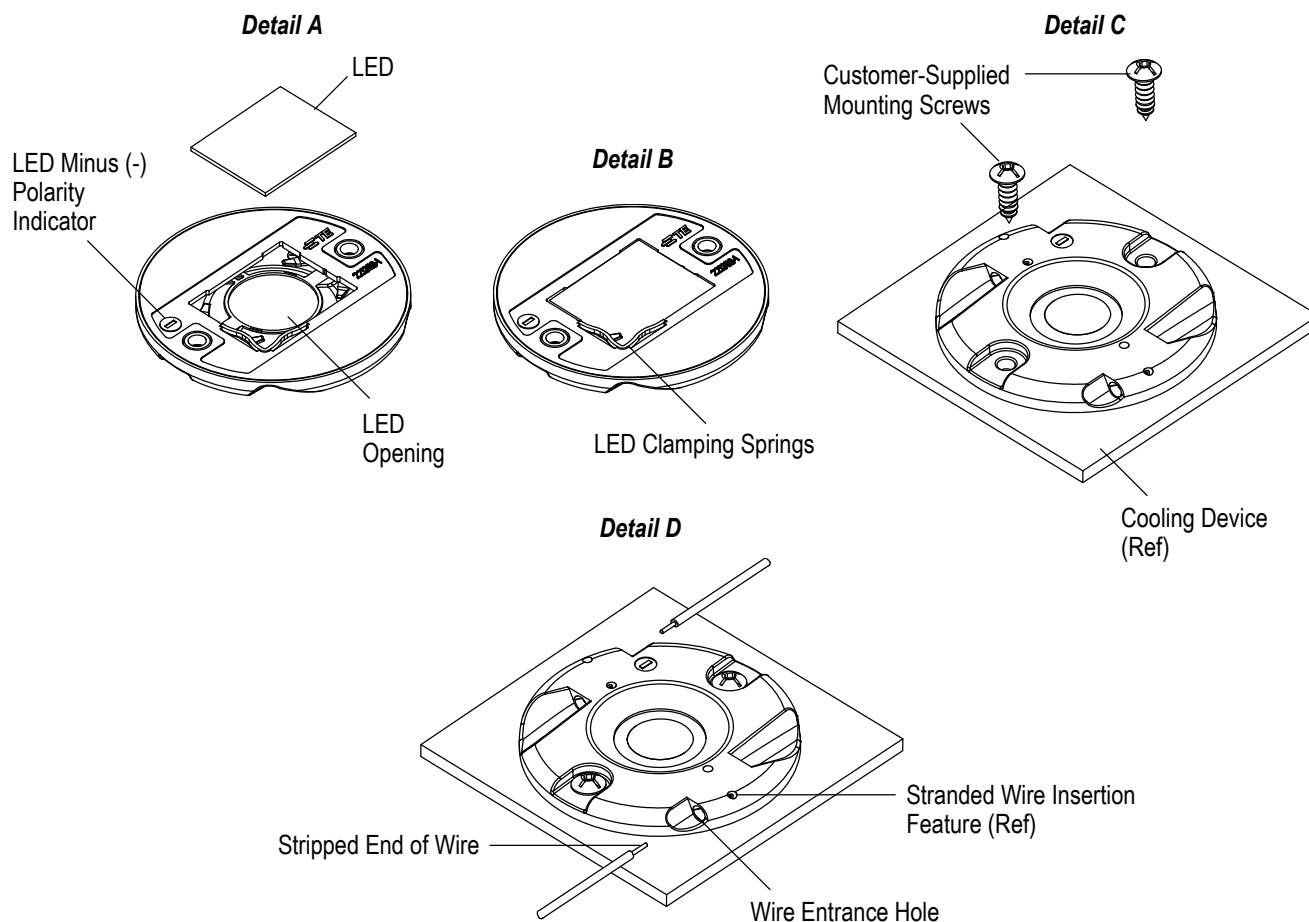


Figure 4

3.6. Removal

The LED holder can be removed from the cooling device by removing the customer-supplied mounting screws.

3.7. Replacement and Repair

Defective or damaged LED holders must not be used. The LED holder must not be re-used by removing the wires. The maximum mating cycle for the terminated LED holder is 5 times without removing the wires from the LED holder.

4. QUALIFICATION

LUMAWISE Z32 LED holder is Recognized by Underwriters Laboratories Inc. (UL) in File E 28476.

5. TOOLING

A 1-mm diameter punch is recommended when using the stranded wire insertion feature.

A standard screwdriver is required to tighten the customer-supplied mounting screws for mounting the LED holder to the cooling device.

6. VISUAL AID

The illustration below shows a typical application of the LUMAWISE Z32 LED holder. This illustration should be used by production personnel to ensure a correctly applied product. Applications which DO NOT appear correct should be inspected using the information in the preceding pages of this specification and in the instructional material shipped with the product or tooling.

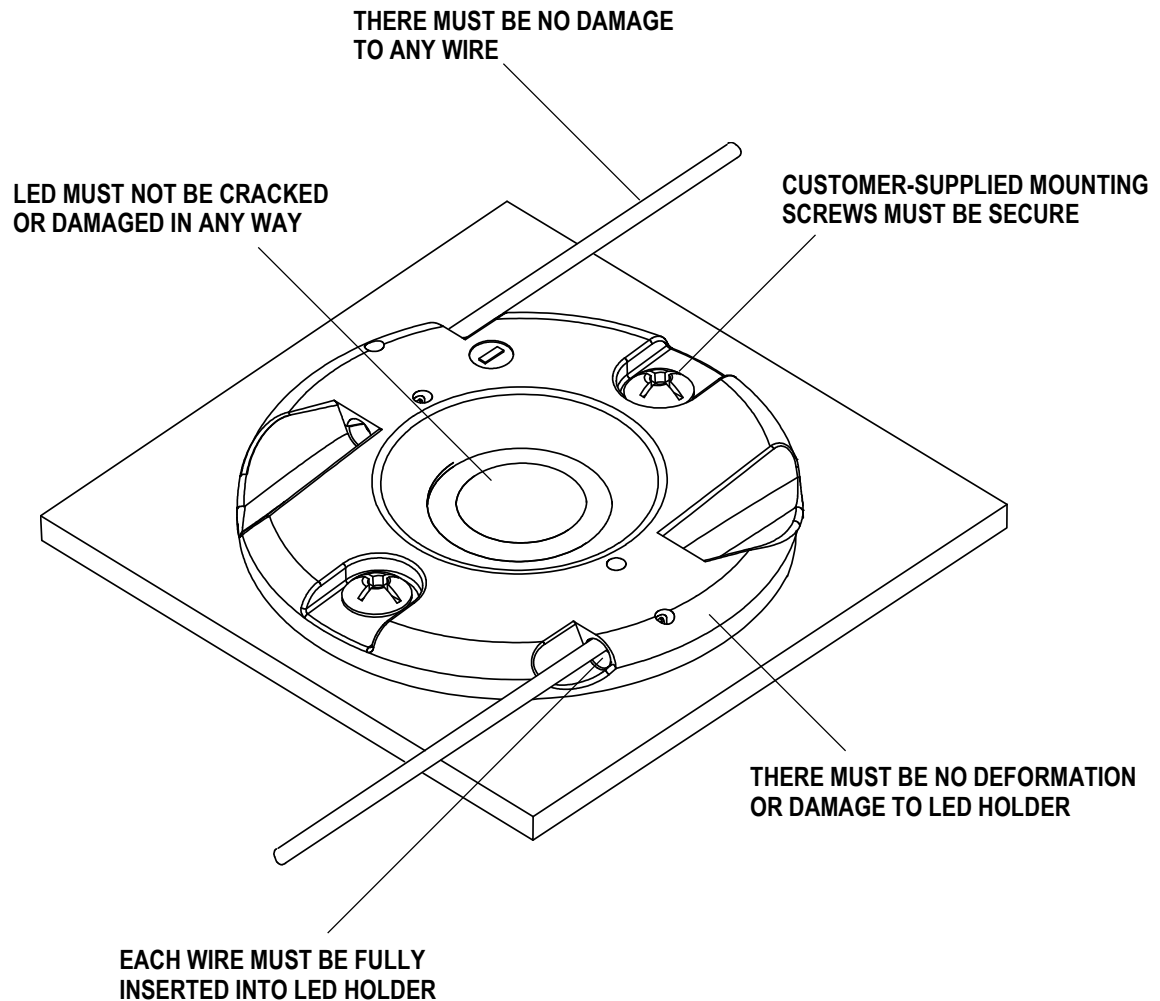


FIGURE 5. VISUAL AID