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Ketra & Track Lighting Applications

Track lights are a popular design option for architectural and accent lighting. Both of which are perfect applications for Ketra light sources. This application note explains how Ketra trackhead and Ketra lamp base options provide an opportunity for a complete and dynamic lighting design in addition to the various ways to approach track applications with Ketra to ensure a successful design and installation.

Overview and What Ketra Offers

There are 3 main forms of trackhead in the marketplace: H-type, L-type, and J-type. Each has its own advantages, disadvantages, number of conductors, sizes, and manufacturers. See the images below for a section cut of each track type. Ketra produces the H-type trackhead, but not an L-type or J-type trackhead.

H-Type

(3 wire)

L-Type (2 wire)

J-Type (wide 2 wire)









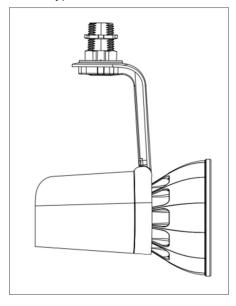
Connector on Track Head







Ketra also produces an NPT-type trackhead, also known as a canopy mount (see the image below). The NPT-type trackhead is not a standard trackhead. It is used in architectural ceiling applications that can accept a 1/2 in (13 mm)-14 knockout connection with flying leads. These are primarily used in single "track-like" or post fixtures. Each works in its own application, but they are not interchangeable with the L-type, H-type, and J-type.



Design Best Practices

There are 2 options if there is uncertainty about whether Ketra trackhead and a certain track is compatible.

- 1. Confirm the Ketra trackhead is compatible with your track via a mechanical mockup.
- 2. Utilize Ketra's standard E26 or GU24 base and lamp types to work with other manufacturers' trackheads that are made to fit a specific track type.

Confirm Compatibility - Mechanical Mockup

While the threaded nipple on the NPT-type trackhead is an industry standard of 1/2 in (13 mm)-14, H-type compatible trackheads aren't standardized to the same level as the NPT trackhead. Trackheads and track can vary from manufacturer to manufacturer. This risk from variance should be mitigated via a mechanical mockup.

If either an H-type track or an NPT-type mounting receiver is being used, then a mechanical mock-up is recommended, especially on larger jobs. Mockups are commonplace in other trades in the commercial construction industry. Creating a small-scale, single-room proof of concept prior to scaling to multiple floors in a building could potentially save a lot of money, time, and effort.

Use of Ketra Lamps with Other Tracks and Trackheads

If only J-type or L-type track is available, Ketra offers A20, PAR30 long neck (S30), and PAR38 (S38) lamps with either an E26 or GU24 base. If another manufacturer produces a trackhead that is compatible with a standard lamp size that Ketra offers, then the third party trackhead for J-type or L-type track can be used. Like the H-type track, a mockup should be done to confirm complete reliability and functionality.

Mockup Testing Best Practices

- 1. Never mix and match trackheads with different track types.
- 2. Ketra lamps are heavier than many lamps. Lutron recommends installing a piece of track and loading it to its maximum rated number of trackheads.
 - Ensure the weight will not cause the trackhead to dislodge from the track causing electrical connections to loosen
 - Understand if the angle of the trackhead will shift over time
- 3. Confirm the aesthetics of the lamp with the trackhead.
 - The PAR30's long neck could cause the lamp to stick out of the trackhead, potentially affecting the aesthetics of the space



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