Custom Panel Mount Indicator for Control and Indication

Application Details

Industrial equipment and data centers require a clear method for identifying specific activity with a specific LED system that provides the visual support for any related events. A reliable and easily identifiable LED located in the main panels or in the front of the servers provide the required functionality, but requires also to be protected with a lens that still allowed for the LED to be visible to the technicians and operators from a specified distance.

Meeting stringent regulatory and well detailed specifications were also a critical part of the qualifying the product for the environments in which the LEDs will operate. The space available for the LED was limited since also needed to accommodate a fixing mechanism that would allow for a simple and secure installation.

Application Requirements

The LED color had a very specific requirement for optimized viewability along with electrical characteristics. Emitted light required specific diffusion and texture of the lens for proper projection and meet viewability requirements. LED is powered through the included connectors.

Assembly of the array had to meet specific mounting requirements on the panels or servers to allow for easy handling during installation and secure a tight seal.

The array also meets temperature, humidity, electrical, and overall performance requirements specific for the intended applications.
Solution & Product Selection

Designed a very specific lens and LED housing with mechanical features to secure the LED and also to allow for the lens to properly latch onto the holder.

The LED is lodged into the holder which secures it in place. The lens contains features for proper light diffusion and enhanced visibility while also providing a secure tight onto the holder.

Leads were specifically configured to allow for a stealth installation on the enclosure which had limited installation space. The array has wires and connectors that were specific for the application.

All-in-all: Meeting the need

Final assembly was tested by installing and evaluating for proper attachment to the panels and servers. Emitted light visibility was also evaluated, along with reliability of the complete assembly for compliance with standards.

The development required continuous sharing of information and results. Continuous and prompt feedback was also an important component of this project which was successfully brought to completion under the original scope’s parameters and requirements.