

SMFLP Series Flexible Light Pipes - Rugged Outdoor Cabinet Application Details

A customer is creating a ruggedized outdoor cabinet that can be placed in a residential or commercial entry area. The cabinet is designed to accommodate the safe delivery and pick-up of packages from various delivery services. The cabinet needs to be tamper-proof and be able to endure weather and industrial delivery interaction daily.

Application Requirements

A configurable light pipe system that provides for large length spans from the circuit board while offering different lens style options. The light pipe must be made from a flexible material that can be shaped to fit around internal cabinet obstacles. This LED indication is used to signal the end-user that packages have been delivered.

Solution & Product

A Flexible Light Pipe System was the preferred choice for the third-party design team. It satisfied the variable length requirement to accommodate distances up to 36 inches. Designers were pleased that the board mount adapter adds strength to the system along with the flexibility of the plastic optical fiber to shape and align the pathway to the point of indication. A Bivar SM0605 Series Surface-mount LED was selected to provide a red/green bi-color indicator combination. The SMD LED choice provided a package footprint that makes it easy to switch it out for a tri-color version in future designs. A smoked lens appearance was preferred to match the cabinet overall appearance.

All-in-all: Meeting the need

In order to accelerate the design process to meet the tight timeline restrictions, a range of SMFLP systems in 6-inch and 12-inch increments were sent overnight to the designers along with the SMD LEDs. This enabled the design team to fit from different points in the cabinet and better situate other key components for a clearer path to the panel. Final lengths were quickly determined, and prototypes were built and shipped in less than 48 hours.



SM0605



SMFLP

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