

# Switch Selection Considerations

During more than a quarter century of assisting customers with their Presslite switch requirements, Electroswitch has learned that the best rule is... evaluate before you buy! Test samples of selected switches should be installed in the projected equipment, and should be exposed to actual operating conditions and environments before final procurement.

In evaluation and selection, some general considerations are worth stating which apply to all types of switches. These include...

## Over-Specification

Do not specify a higher power switch than is actually required, on the assumption that the higher rating will automatically provide a safety factor and increase its life in the application. It doesn't! In fact, the exact opposite may be true, because of the high mechanical loads necessary to assure adequate contact force. In addition, the necessarily greater contact mass may introduce intolerable "bounce" problems into the overall circuit.

## Low Level (Dry Circuit)

Although there is no industry standard definition of low level or dry circuit, and they tend to be used interchangeably, it is generally understood that these terms describe conditions where applied voltage is insufficient to puncture any chemical film which may form over the contacts. So, switch design features to look for in this type of circuit application are:

- Wiping Action, to cut through the film
- Hermetically Sealed Contacts, to provide a controlled atmosphere
- High Contact Pressure, to pierce the film

## Lens Color

A broad range of lamp brightness is available for different switch applications. Generally, lenses of white, red, and orange give the greatest apparent brightness for a given lamp. Because of the spectral distribution of the incandescent filament, and the response of the human eye, green is noticeably dimmer; blue should be avoided in many applications.

Where a neon lamp is used, smaller caps are recommended ... in off-white (for greater transparency), red, and orange. Green and blue are not usable.

## Standards

Certain styles have been designated as standards. These products generally offer shorter lead times.

## Product Support

There are many considerations that must be kept in mind during the switch selection process. Ultimately, the entire process reverts again to the basic rule - evaluate before you buy. Electroswitch has for many years worked with customers to provide just the right switch for the application, be it a standard unit, a slightly modified version, or a special design. The application engineering staff is prepared to discuss special design features and colors at any time to assure switch performance and acceptability in your end product or system.