

## **PRODUCT NEWS - *Wired Surface Mount LEDs* - All Scales, Many Applications**

Richmond Controls offers 603 size surface mount LEDs with #36 wires attached. A “603” surface mount component has a footprint of 0.060” x 0.030” (1.5 mm x 0.75 mm). These LEDs can be inserted end-first into #56 (0.046”) holes. A major application is for headlights and ditch lights in all scales. Available colors include Golden White, Sunny White, Red, Amber, Aqua Green and Blue. (Aqua Green is the shade of green that most closely matches the green color seen in railroad signals and traffic lights.) The price is \$3.00 each. The default wire length is 6” (15 cm), but 14” wires are also available.

Special assemblies are available, including LEDs whose wires exit toward the end rather than out the back (ideal for small scale ditch lights). Custom wire length and bi-color assemblies with two LEDs (such as red plus aqua green) are available

The end-exit variety is ideal for small scale steam and diesel locomotives, where it is inserted directly into the headlight hole. In this small size and configuration, it can easily replace the smallest incandescent lamp. It is a good choice for replacing lamps in marker light assemblies and also for porch mount ditch lights. It is ideal for N Scale Athearn Bombardier cars, the Atlas Shay and Mogul, and most other small-scale steam and diesel locomotives, where it is inserted directly into the headlight hole. We refer to this wiring style as the “ditch light” configuration. Part numbers are in the form “GW0603-DL06” (and this part number is for the Golden White variety).

The rear-exit variety, where the wires come straight out from the back, can be inserted into a 0.076” hole. It is a good choice for applications where the LED will be glued to the back surface of a locomotive headlight lens or an MV lens. For larger-scale locomotives, these LEDs can often be inserted completely within the headlight fixture. This wiring style is referred to as the “normal” configuration. Part numbers are in the form “SW0603-WT06” (and this part number is for the Sunny White variety).

All colors are offered in both styles. The first two letters in the part number represent the color (AM = Amber, AQ = Aqua, BL = Blue, GW = Golden White, RD = Red, and SW = Sunny White). The “0603” represents the LED size, “WT” means the normal Wire Terminals, “DL” means the Ditch Light wire configuration, and “06” is the wire length in inches. To order, a description works just as well as a part number.

A prewired three-color surface mount LED is now available. The LED size is 1204 (0.120” x 0.040” footprint) and the four twisted wires are 14” long. The package includes three *pure-color* LED dies (Red, Amber, and Aqua Green) connected in the common-anode configuration. Thus, the three colors are obtained directly, with no need for any color mixing. The part number is RYG1204-WT14, and the price is \$10.00 each. The LED can be inserted end-first into an 0.063” diameter hole.

When using all LEDs, the current **MUST** be limited using a resistor or another means. See the 1Q06 Newsletter for assistance in selecting resistors, or contact us. On request, we will supply one free resistor of the customer’s choice with each LED.

We **STRONGLY** recommend using Pacer’s Formula 560 Canopy Glue **and NOT superglue** to secure these LEDs in position. If your local retailer doesn’t carry this ZAP product, Richmond Controls is usually prepared to furnish single bottles for \$5.00 each.