



Project

Custom Designed LED Light Indicator for Portable Lightweight MIG Welder

Application Characteristics

MIG welding (GMAW – Gas Metal Arc Welding) is the most common process used in home shops, small businesses, manufacturing and metal fabrication applications. The portable, all-in-one MIG welding machine offers a compact and lightweight solution for auto restoring, DIY home hobbyists, farm/ranch, metal art/sculptures, manufacturing and more.

The portable MIG welder has a breakthrough technology that sets your welder to the proper parameters. The Auto-Set feature automatically provides the right settings to weld mild steel while tapped voltage control allows the flexibility to manually set your own parameters.



Auto-Set eliminates guesswork and saves time on setup. When using .030-inch wire, turn the wire speed control fully counter clockwise to select Auto-Set mode. The Auto-Set light indicates mode is activated. Then select material thickness using the voltage/material thickness control. Auto-Set is available for welding 22-gauge through 12-gauge mild steel, and works with .030 solid wire and C25 shielding gas (75% argon, 25% CO2).

The portable MIG welder also has an over temperature light on the control panel to ensure proper and safe use of the machine.

Solution & Design

VCC delivered a custom design for the MIG welder with 2-LED and 3-LED assemblies connected to a terminal.



2-LED assembly

The MIG welder uses blue L59 Series LED panel mount indicators with hi dome lens and a low profile black nylon housing for the Auto-Set indication.

In addition, the MIG welder uses yellow L59 Series for the over temperature light indication.



With a diameter of 0.250", the L59 Series offers a viewing angle of 60 degrees. The indicator has a diffused lens to increase light output across the entire lens, which is particularly important for daytime use.

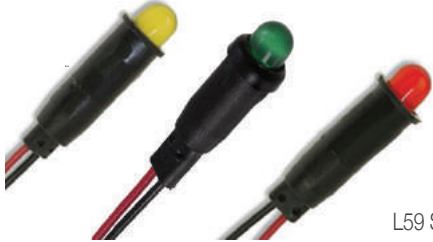
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Case Study

L59 Series

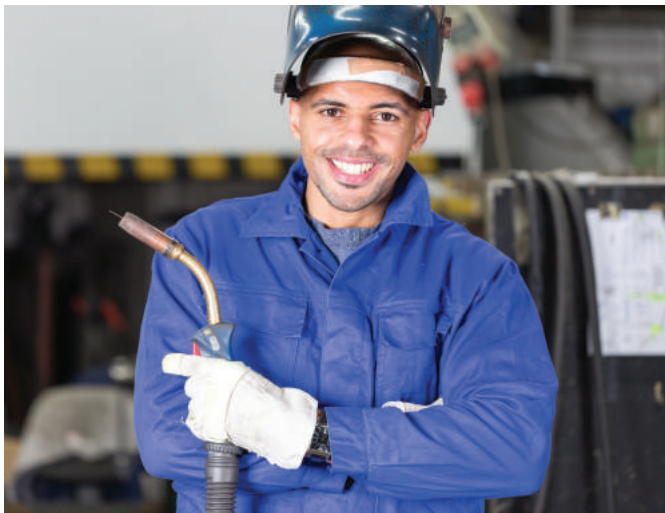
The L59 Series offers a wide operating voltage range from 2 to 24 volts DC and is available with wire leads or straight leads.

The snapfit LED simplifies installation and maintenance.



L59 Series

The series provides illumination for applications that require consistent identification and communication through light, and achieves full brightness in microseconds.



Results & Benefits

The MIG welding machine is ideal for anyone who is looking for a compact, lightweight MIG welder that's easy to use, accommodating nearly every metal type and thickness used by a car builder, and it has arc characteristics rated as best in class.



The low-profile L59 Series LED panel mount indicators offers high brightness and clear indication for the Auto-Set function and over temperature warning. These lightweight assemblies ensure proper communication through light with the welding operator.

Value-added Service

As a value-add, VCC was able to add the customer-specified terminals and connectors at a lower cost than if it were done in-house.



L59 Yellow



Customer specific connector

VCC understand the importance of visual communications and brings value to your design challenge. VCC becomes an extension of your design team and can provide technical advice and value to your design challenge.

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