

Application Solution 104:

F & G-Series Toggles "Finding Just the Right Seal"

The Challenge:

Carling Technologies, Inc. was contacted by a major US welding company to produce a sealed toggle switch that would be cost-effective, yet stand up to an IP-65 rating. The product was a small welding machine, which is often mounted on the back of a truck and exposed to a variety of elements, including dust, dirt, rain and snow. One main concern in making this type of sealed toggle, was to keep the cost down – depending on the type of seal, the switch could double in price. The challenge to Carling's design team was to modify existing F & G-Series (one and two pole) toggles, and devise a method to cover all the switch base seams, as if covering it with "full body boot."



The Solution:

Since the idea of producing a hermetically sealed switch would not be cost effective, a clear silicone boot was designed to enclose the switch base yet still visually show UL and CSA ratings and logos. This base boot is used in conjunction with a hexboot (screws right over the toggle) and RTV sealed terminals, to effectively seal all toggle seams and openings, acting as a "full body boot" against the outdoor weather elements.

The Results:

Today the F & G-Series toggles are offered with a full seal option at a economical price, for those applications that require sealing to an IP-65 rating. The enhanced one and two pole toggles gave this welder manufacturer what was needed to meet the harsh environment conditions that its products endure, at an economical price, and without changing the design of their panel.

Applications:

Potential markets for this product include: Appliance, Dental, Factory Automation, Medical, and Audio Visual, Equipment, Marine, Transportation and sundry other applications as well.

Warranty Policy

Carling Technologies, Inc. (Seller) warrants that goods sold hereunder shall be free of defects in material and workmanship for one year from date of shipment.

In the event of such defects, the Seller's only obligation shall be the replacement or the cost of the defective goods, themselves, excluding, without limitation, labor costs, which are or may be required in connection with the replacement or reinstallation of the goods. This warranty is the Seller's sole obligation and excludes all other remedies or warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, whether or not purposes or specifications are described herein. This Warranty expressly excludes any and all incidental, special and/or consequential damages of any nature. Seller further disclaims any responsibility for injury to person or damage to or loss of property or value caused by any product which has been subjected to misuse, negligence, or accident; or misapplied, or modified or repaired by a person or persons not authorized by the Seller or which have been improperly installed.

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For additional information and to order our F&G-Series Sealed Toggle Switches, please contact a Carling Technologies Technical Customer Service Rep:

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