Littelfuse®

Expertise Applied | Answers Delivered

5 THINGS YOU NEED TO KNOW

COMMERCIAL VEHICLE PRODUCTS

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The Top 5 Things You Need to Know About
Working with Littelfuse Commercial Vehicle Products

1. Cole Hersee is a Littelfuse brand

You can find full descriptions and wiring schematics for Cole Hersee Brand parts by typing the part number in the **SEARCH** box at the top right of the page.

Alternately, you can find a Commercial Vehicle Product Distributor near you by using the **FIND A DISTRIBUTOR** key at the top right of the page. If you have a custom product design requirement, Littelfuse Commercial Vehicle Products can help manufacturer a solution. Our engineers can work with you to design a product from the concept to completion (minimum quantity requirements apply).

2. We have vast experience dealing with complex Commercial Vehicle specifications

When selecting a product, there are several technical terms that you need to understand. Here are a couple of key examples:

- **IP rating:** a measurement signifying how waterproof and resistant to ingress of dust a switch is.
- **Pre-Fusing:** Fusing high current circuits close to the battery to protect high current primary cables. Also called "Primary Fusing". Overcurrent protection of the heavy electrical cabling has traditionally been performed by fusible links. There are problems with these Links - there is a possibility of causing fires; and they are time-consuming to replace, often necessitating replacement of runs of heavy cable. Littelfuse bolt-down fuses like MEGA and MIDI fuses are recommended replacements for fusible links.
- Our **glossary** contains a full list of technical terms and definitions.

IP RATING CHART			
IP 65	**1st Digit - SOLID** Degree of protection against solid objects	**IP 65**	**2nd Digit - LIQUID** Degree of protection against water
0 No Protection		**0** No Protection	
1 Protected against a solid object greater than 50mm		**1** Protected against water drops	
2 Protected against a solid object greater than 12.5mm		**2** Protected against water drops at 15 degree angle	
3 Protected against a solid object greater than 2.5mm		**3** Protected against water spray at a 60 degree angle	
4 Protected against a solid object greater than 1.0mm		**4** Protected against water splaishing from any angle	
5 Dust Protected. Prevents ingress of dust sufficient to cause harm		**5** Protected against water jets from any angle	
6 Dust tight. No ingress of dust.		**6** Protected against powerful water jets and heavy seas.	
Example: **IP 65** Dust tight. No ingress of dust Protected against water jets from any angle		**7** Protected against the effects of temporary submersion in water. (30 minutes at 3 feet)	
		8 Protected against the effects of permananent submersion in water (Up to 13 feet)	

3. We have specialized knowledge on Switches

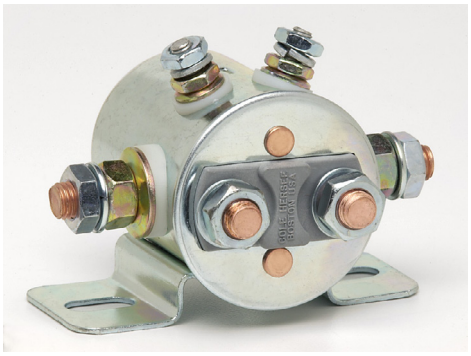
Our **FAQ** has the answers to all sorts of questions about switches. We have been in the business for decades and have the answer to just about any question you might have about switch applications. We have switches for a variety of applications, including for rugged environments such as on boats or other marine applications, and applications with high vibrations; we also use a range of materials to suit your design and cost requirements – you should always select switches that meet or exceed your requirements so that you do no risk failure.

4. We are an authority on Battery Isolators

Battery isolators divide DC current into multiple branches that allow current to pass in only one direction per branch. They allow the charging of multiple batteries with a single power source without having to connect the battery terminals together in parallel.

The maximum charging current of a battery isolator is determined by the maximum alternator rating. For common alternator applications, you should use a four terminal battery isolator (Part Numbers 48122, 48092, or 48162). The fourth terminal is used to excite the alternator and supply >12V to the alternator when the ignition switch is turned on.

5. We are experts on Solenoids



We have ~50 different types of solenoids, including 12V, 24V, and 36V continuous or intermittent duty solenoids in a steel or molded housing. We also have plasticized housings for better weather-resistance and a latching solenoid that can be energized and de-energized by a momentary switch.

We recommend always choosing the appropriate component for the application, but in a pinch, you can use a continuous duty solenoid in place of an intermittent duty solenoid (but not the other way around); the only downside is that it will have a shorter life expectancy.

Continuous duty solenoids draw less current than intermittent duty solenoids. However, since continuous duty solenoids are energized for long periods of time, they can become hot to the touch: this is completely normal. Just make sure that the solenoid is mounted in a well-ventilated area. Electromechanical solenoids should be mounted on a non-vibrating surface.

Visit **Littelfuse's FAQ** today for answers to any project related questions.