Encapsulated Coils are Apt for Harsh Working Environments by Steve Heran

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Coils are required in just about every industrial sector that needs to transmit different types of signals. They are considered to be an inductor. While some applications can make do with bare coils, encapsulated coils are used in harsh environments. As we know, factors such as moisture, dust, chemicals, and heat can negatively impact the coils. This could be potentially dangerous to any application, leading to short circuits or accidents.

When it comes to difficult environments, one cannot rely on the simple, bare coils because they are not equipped to handle the implications of harsh working conditions. It is also important to protect coils from things like petroleum, solvents and other chemicals. There are several materials with which such coils can be molded and encapsulated. A number of firms offer well-made coils that can be bought with special encapsulation. Here are some of the features that you should look for in encapsulated coils:

1. You could opt for custom-made coils that are UL listed, with B, F and H insulation. The firm should also be able to offer you open insulation systems if so required.

2. Thermoplastic and thermoset molding makes the coils more safe and durable.

3. If you need complete encapsulation, you can opt for epoxy transfer molding. This makes way for added security while using the coils even in the harshest environments.

4. There are a number of high quality molding compounds that can be used for encapsulation. Some of the highest quality compounds are Rynite, RE5220, 6/6 nylon, thermoset epoxy, insulcast, among others.

When made according to latest techniques, these coils are not only cost-effective, but also highly durable. For example, such coils might be made using high capacity shuttle presses and multi-cavity molds. These factors enable a manufacturer to bring cost down considerably. No matter what variety of coils you use, it is important to check the UL listing. You could also opt for toroidal coils that are used in electromagnetic applications. It is prudent to first ask for a prototype of toroidal coils and then make a final decision.

This ensures the highest levels of safety in your coils. Also, do remember to ask your manufacturer for test reports to know how these coils have fared in critical tests. Solenoid coils are essentially coils that act as a magnet when electric current is passed through them. Solenoid coils can be made in different materials such as steel, iron or sometimes powdered iron.

The industrial sector also needs to rely heavily on explosion proof components. Coils are no exception to this. The market today offers high quality coils with NEMA configurations. Encapsulated coils meant especially for hazardous environments and explosion proof coils are also available in the market. Heat transfer applications are also aided by such coils, and they are protected from thermal shock.

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I have many years of experience in electromechanical, electromagnetic and electronic industries. I like to share my knowledge for the most efficient solenoid coils. Also I take my interest in choosing high quality a encapsulated coil making industries. If you are looking for electric coils, a toroidal coils, molded coils, custom cable harness, you stand to benefit from my articles.

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