How the Right Connectors Can Increase Public Confidence in Trains

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Children who grow up loving trains rapidly lose their enthusiasm as adults, when trains are late or uncomfortable. If the air conditioning doesn't work or the Wi-Fi is down, passengers may choose to take their next ride in a car, bus or plane. To increase public acceptance of rail travel, designers must increase both passenger comfort and safety.

Reliable Connectivity is Key to Confidence

Dependable connectivity plays a vital role in providing an environment that will attract customers and promote repeat business. Failure of connections can keep a train from arriving on-time. Lost connections can plunge customers into the dark. A broken connection can leave riders shivering as the temperature falls or sweating as it rises.

How Connectors Ensure Train Reliability

Well-engineered connectors keep a train well maintained and on schedule. Effective connectors also improve data reliability. Accurate and timely information permits equipment such as digital signage to announce stops accurately.

The rail connector market can be divided into two broad segments – inside and outside the train. Both types of connectors must be rail certified to withstand the vibration inherent in a railway system. Connectors used inside locomotives must satisfy stringent safety requirements. In addition, external connectors must resist harsh weather conditions, dirt and impacts from rocks.

Connectors used on the outside of the train can be found in a wide range of applications on top, underneath and car to car. Jumper assemblies from car to car are a growing area of connector use for data signal and power. Traction motor connections at the bogies exemplify connectivity engaged to speed up maintenance and keep cars on the track.

Inside, connectors are found in driver's consoles and control cabinets. Modern cameras connected to digital video recorders are gaining favor to promote the peace of mind that riders should expect. As the use of passenger information systems expands and security and safety systems are upgraded, the need for reliable connectors is growing.

The U.S. mandate for positive train control systems (PTC), also is increasing the necessity for robust and dependable connectors. The incorporation by rail designers of both fiber optic and radio frequency equipment to communicate with infrastructure is another step toward improving service. Efforts of transit authorities to increase ridership is further contributing to a rising need for reliable connections.

The Right Connectivity Solutions are Critical

In a structure as large and complex as a train, connectors may appear to be trivial components at first glance, but their ability to function dependably is the difference between meeting customer expectations and losing public confidence in trains. Poorly managed connection of shielding on one connector can take down an entire train system like doors. Ensuring this does not happen starts long before the train gets on the track. The progressive design and proper support of the connectors used under the skin of the rail car ensures the cars stay on the track operating smoothly. For optimal development of train systems, it is imperative that a supplier provides designers with adequate information about how connections are achieved and the reliability of the connectors that effectuate them.

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HARTING – The Right Connectivity Supplier for Rail

The complexity of attaining effective, robust and reliable connections in rail design can raise a large variety of questions. HARTING is the gold standard in rail connectivity. Their time-tested and robust connectors have been trusted by leading train manufacturers for decades. HARTING has connectors designed specifically for conditions on the railroad and offers detailed solutions for suppling customers dependable service and a comfortable, inviting ride.

Ensuring your customers the most comfortable ride and protecting your bottom line starts with ensuring your suppliers use HARTING connectors.

To discuss making your railcars more reliable contact our technical experts at techsupportus@harting.com or via phone at 847-741-1500.

At HARTING, we are as invested in our customers as we are in our products.

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