

Maintaining the Integrity of Communication Systems Packages in a Trackside Environment | Enidine Energy Absorption Application

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Product Overview

A worldwide communications packaging manufacturer, located in the UK, was designing a new system to allow signal transmission in rail trackside areas normally difficult to access, like tunnels and other obstructed areas. In the past, system packaging OEMs have used a standard elastomeric solution that could not absorb the sudden shock conditions characteristic of this type of environment. In addition, the mounts could neither provide the necessary longevity nor reliability in temperature extremes. Pleased with other ITT Enidine Inc. products, the customer contacted us to help reduce shock and vibration inputs by 80%, with acceptable shock protection, given the unique space limitations.

Product Solution

Subject to a wide range of shock and vibration inputs, the signal boxes along the tunnel were installed with a variety of Compact Wire Rope Isolators (CR) models. With their all-metal construction, the CR isolators supported the required load and served as stabilizers providing multi-axis shock and vibration isolation in a limited space. The CR4, CR5 and CR6 models were used to meet the criteria experienced overall by the system and allowed for different units to be designated for each mass. Their small size permitted the isolation of individual system components, providing the shock protection required, and ensuring the overall structural integrity of the new system.

Application Opportunity

After rigorous testing, ITT Enidine Inc.'s Compact Wire Rope Isolators were incorporated into the system's design. The product's single-point assembly reduced the overall installation time, an added benefit not previously realized at the inception of the project. As a result, the new packages were installed in the field, allowing the manufacturer to offer unprecedented communications capabilities to its customers. Any communications systems manufacturer (SIC 3557 and 3661) requiring the isolation of components within a unique installation could benefit from the use of this ITT Enidine Inc. technology.

