

# GE Multilin Products...

## Enhanced with Harsh Environment Conformal Coating



GE Multilin offers **Conformal Coating** for protection in chemically harsh and high humidity environments.

\* Options available for new relays or as an optional upgrade for existing relays.

### Why Harsh Environment Conformal Coating?

Corrosive agents, such as H<sub>2</sub>S gas, may be found in certain industrial environments. It is known that concentrations as little as 10ppm may attack SMT components.

Long filaments of silver sulfide known as "Silver Whiskers" can form on the surface of the silver electrical contacts of electronic surface mount (SMT) components, when exposed to environments containing low levels of hydrogen sulfide (H<sub>2</sub>S). These formations can be further accelerated by the presence of heat and moisture. These deposits can potentially create short or open circuits that can cause a relay to ultimately malfunction or fail.



Example of SMT component exposed to a H<sub>2</sub>S environment.

Although modern digital relays are extremely robust, meeting and exceeding ANSI/IEEE standards for survivability in utility and heavy industrial environments, specific environmental hazards such as the effects of H<sub>2</sub>S gas and other corrosive agents on the SMT components, are not specifically addressed.

GE Multilin addresses the issue of contamination, including H<sub>2</sub>S, by applying a Harsh Environment Conformal Coating to the circuit boards for the most widely used GE-Multilin protective relays. This Harsh Environment Conformal Coating is engineered to resist H<sub>2</sub>S gas and other corrosive agents, including humidity.

Adding harsh environment conformal coating improves and extends the working life of the product and ensures security and reliability of performance... bottom line it results in improved asset management and increased uptime.

GE Multilin's Harsh Environment Conformal Coating option is strongly recommended for chemically harsh and high moisture environments, including applications in:

- Oil & Gas
- Petrochemical
- Pulp & Paper
- Sewer & Waste Water
- Water Treatment Plants
- Primary Metals
- Mining



imagination at work

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ISO 9002 CERTIFIED

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The material used for the Harsh Environment Conformal Coating is approved to military specifications MIL-I-46058-C, type AR, ER and UR, and is also UL recognized according to specification UL746C/94 for indoor and outdoor applications.

For existing and new protective relay applications in environments with known or possible H<sub>2</sub>S contamination GE Multilin strongly recommends that Harsh Environment Conformal Coating be considered.

For new relays, the Harsh Conformal Coating option is selected within the relay order code... Visit our Online Store to make your selection. The following products are available with Harsh Environment Conformal Coating option:

- UR Family of Products
- SR Family of Products
- 369 Motor Management System
- SPM Synchronous Motor Protection System
- 239 Motor Protection System (October 2005)

GE Multilin offers a change out program where your existing fleet of relays can be upgraded with harsh environment conformally coated circuit boards. The refurbished and conformally coated units will carry a new warranty after the repair/upgrade.

Only GE Multilin offers such protection as an option for digital protective relays. GE Multilin remains committed in supplying you with the most reliable protection products and systems available.



Ensure your electrical protection relays are safeguarded against harsh elements with **Harsh Environment Conformal Coating** from GE Multilin

#### **About GE Multilin**

GE Multilin, a division of GE Consumer & Industrial, is a global leader in the design, manufacture, sales and service of protection, metering, control and automation systems, as well as instrument transformers, power quality products and telecommunication networks for utility, industrial and general industry applications.

For more information, visit our website at <http://www.GEMultilin.com>

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