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AUGUST 2003 // www.ianmag.com

Complete Surge Protection Solution Protects An Entire Foundation Fieldbus System Without Performance Limitations

MTL Surge Technologies, Hampton, NH is offering a comprehensive surge protection solution (the MA15, FP32 and TP32) designed to protect an entire Foundation Fieldbus system.

"Typically, when surge protectors are used, they can affect a voltage drop to the bus," explained David Crandall of MTL. "The MTL Surge Technologies Fieldbus protector range uses a hybrid protection

network to reduce performance limitations while providing end-to-end protection on the bus."

The MA15 protects the power supply and prevents surges from entering the system via the AC mains supply. The FP32 prevents surges occurring on the trunk or spurs from entering the control area or damaging terminators. The TP32 provides protection for field instruments.

"At the heart of this Fieldbus specific protection scheme is the FP32," Crandall explained. "The FP32 uses a multistage hybrid surge protection network that combines solid state electronics and a gas filled discharge tube (GDT) to deliver surge protection up to 20kA. This surge protection circuit is designed to exhibit exceptionally low line resistance and adds only a tiny voltage drop to the bus."

As a result, no matter how many FP32 devices are connected to a trunk or spur, the system will still be able to support its full 32 transmitters as specified by IEC61158-2. "In operation, the FP32 device doesn't adversely affect the performance or operation of the Fieldbus or connected equipment," according to Crandall. "The FP32 allows signals to pass with very little attenuation, while diverting surges safely to earth and clamping output voltages to safe levels.

The FP32 protection network meets IEC61158-2:2000 for 31.25kB/s systems such as FOUNDATION Fieldbus, PROFIBUS-PA and WorldFIP.

MTL Surge Technologies
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