



Industrial Ethernet

Tyco Electronics now adds Madison Cable brand Industrial Ethernet cabling to its portfolio. Industrial Ethernet refers to the use of standard and custom Category-type cables and Ethernet devices for Process Automation and Industrial Control. Often there is a need for special hardened or robust products to guarantee survival in harsh environments.

Historically, Industrial Ethernet cabling has been based on the TIA 568 standards with modifications and deviations applied as dictated by the end user or application. The industrial environment often requires additional shielding, more robust jacketing materials, and construction techniques that allow the cable and connectors to survive high flexure. Interestingly, aesthetics are also important, and often play a big part in the perception of the quality of the cable.

Standards particular to Industrial Ethernet are being developed by the TIA TR-42.9 subcommittee. Tyco Electronics is an active member of this subcommittee, as well as the Ethernet development groups present in the IEEE 802.3 committee. As active members, Tyco Electronics helps develop the standards, and has high visibility to the requirements and specifications before they are released to the general public.

The Tyco Electronics facility that produces Madison-branded cables are experts at the various unusual and sometimes custom materials and design techniques that are necessary to fulfill many Industrial Ethernet applications. An example is the recent TPE-belted, high flexure cable developed and used for MRI imaging, pictured above. This custom-designed product is now being reviewed and tested by other OEM's in various Industrial Ethernet environments.

There are many different cable configurations and designs available for Madison-brand cable, to facilitate specification criteria which may include:

- Sunlight/UV resistance
- Oil/Solvent resistance
- Optimized Shielding
- Water/Fluid blocking
- High Flex and/or High Flexibility materials
- Special safety compliance ratings

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