Molex Leads Advances in Industrial Network Communications

Brad® products provide tough, reliable solutions in key industrial network applications, such as plant-floor Ethernet systems, Industrial Safety Networks, network commissioning and diagnostic tools.

**Business Challenge:** Provide tough, reliable network communication solutions for plant environments.

**Ethernet System Challenge:** Industrial networks and fieldbuses such as ControlNet™, CANopen®, DeviceNet™ and PROFIBUS® have become vital parts of manufacturing infrastructure. With many systems based on different fieldbus standards, mixed-system projects face challenging interoperability issues. Finding the right devices to support the right networks is a major project design constraint. To help solve this problem, the controls industry is moving towards the adoption of Ethernet on the plant floor.

Modbus™ TCP, EtherNet/IP™ and PROFINET® standards are already being used in backbone networks for high-speed communications between other common industrial networks as well as for data collection and long-term preventive maintenance. Today, Ethernet is migrating to the device level as well. These environments are often harsh and mission critical – they demand more robust solutions.

**Solution:** Brad industrial networking infra-structure products. Brad cordsets, connectors, Ethernet switches and I/O modules are rated at IP67 and above and are designed to meet demanding Industrial Ethernet criteria. They deliver in the presence of vapor, weld spatter, extreme temperature fluctuation and vibration, and feature the Ultra-Lock® Connection System with the patented “push-to-lock” technology for fast, simple and secure connections.

Brad communication products provide access to over 40 industrial networks and fieldbuses, including a variety of Industrial Ethernet protocols, such as Modbus™ TCP, EtherNet/IP™ and PROFINET®. Brad communication PLC modules and gateways connect legacy devices to different network protocols. Brad communication Industrial Ethernet switches can handle determinism and collision issues, have redundant, dual-DC power inputs, and support diagnostic capabilities through SNMP Management Suite software tools.

**Industrial Safety Network Challenge:** ISNs provide many advantages over traditional separate safety networks, including reduced infrastructure costs through less wiring, higher productivity through better zone control and elimination of false triggers, and operations flexibility by allowing production lines to operate in specific locations even when others are shut down. However, implementing ISNs requires new, more sophisticated systems architecture.

**Solution:** Brad Intelligent Safety Network products. In addition to providing ISN components, the Safety Networks Integration team helps device/component manufacturers qualify their products for use in ISN, from product development to certification. Brad ISN products and services include protocol stacks, consulting services, product design and key components.

**Commissioning and Diagnostic Tools Challenge:** Integrators require tools to commission networked automation and manufacturers must have the ability to prevent network downtime.

**Solution:** Brad communications commissioning and diagnostic tools.

These innovative tools when incorporated with your industrial network will produce significant benefits and return on your investment through improved efficiencies, productivity and uptime.

**Benefits and ROI:** Brad network infrastructure products safely and reliably connect devices to over 40 industrial networks and fieldbuses. Brad products are backed by an experienced global organization with local customer service available 24/7.

To learn more about Brad Automation products and solutions, call your Molex representative today at 1-800-225-7724 or visit www.molex.com or www.woodhead.com.