Intelligent Safety Networks... Are You Ready?

Driven by major automotive OEMs, ISN technology mandates are on the horizon for their machinery suppliers. Learn how partnering with an expert to prepare for the coming transition can pay dividends in safety and ROI.

Business Challenge: In 2007, General Motors announced that its suppliers must implement Intelligent Safety Network (ISN) technology in production equipment and machinery supplied to GM plants beginning in 2009. Already widely adopted in Europe, ISN technology is gaining traction in North America and the mandate underscored the necessity to drive safety both at home and abroad.

ISNs provide an integrated safety network architecture that resides on the same CPU with a plant's overall process control system. Incorporating high integrity communications, stringent timing requirements and a SIL 3 implementation (1 in 100 million probability of a dangerous failure per hour), the ISN:

- Automatically takes an industrial process to a safe state when certain conditions are violated
- Facilitates systematic machine maintenance to prevent untimely breakdowns
- Ensures safety compliance and best practices to improve overall plant efficiency and safety
- Provides more flexible, reliable and cost-effective performance than hardwired "safety only" systems
- Requires fewer operators for oversight and monitoring, reducing the cost of safety compliance

GM and other OEMs are leaving the mandated ISN implementation up to their machinery and equipment vendors. Yet researching, evaluating, selecting and implementing an effective ISN solution can be a complex – and costly – challenge.

Solution: Find a Partner to Ease the Transition. ISN technology is proven, tested and available now. Progressive equipment suppliers are preparing for the eventual shift by assessing ISN platforms currently on the market or under development – such as AS-Interface “Safety at Work,” PROFIsafe, SafetyBUS, DeviceNet Safety, and Ethernet/IP Safety. New technical advances in automation hardware and software, as well as, updated safety standards, have paved the way for implementation of these intelligent, programmable safety solutions.

However, ISN planning and implementation takes time and resources and requires some changes in traditional operating procedures. Companies that began the transition early have avoided many of the pressures associated with change. New adopters are finding the expanding list of suppliers in a position (or soon to be in a position) to support ISNs comforting.

Benefits and ROI: Cost Savings Plus Lower Cost of Ownership. Intelligent Safety Networks are emerging as a powerful new business tool – and one of the fastest-growing segments of the industrial automation market. In addition to improving safety performance and compliance, limiting liability exposure, and helping to improve a company's image, a well-implemented ISN can result in both near-term and long-term operational and business gains, including:

- Reduced plant operating costs
- Reduced equipment maintenance costs and lower the cost of ownership
- Increased plant efficiency and productivity
- Assured compliance with EU and global safety standards

For General Motors, the ROI of replacing traditional safety systems with ISNs is profound. The initial projections estimate wiring cost to be reduced by half, while reducing the number of operators involved in safety operations by 75 percent.

Isn't it time for your company to drive safety improvements by finding the right partner and planning the ISN technology roadmap that is right for your business?

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.