



**KB SIGNALING™**

## *News Release*

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**FOR IMMEDIATE RELEASE**  
**Photo Included**

### **KB SIGNALING INTRODUCES FIRST-IN-INDUSTRY REDUNDANT SOLID-STATE CROSSING CONTROLLER TO ADVANCE SAFETY, SIMPLIFY MAINTENANCE**

*New IXC-R20™ Module Expands ElectroLogIXS™ Platform With Pioneering Combination of Redundancy, Advanced Diagnostics, and Seamless Upgrade Path*

**GRAIN VALLEY, Mo. – July 31, 2025** – A next-generation controller from KB Signaling Inc. (KBS) is helping railroads modernize their highway crossing infrastructure with streamlined maintenance, greater resilience, and improved data access – without the need to replace existing systems. The new IXC-R20™ Integrated Crossing Control Module, the latest advancement in the company's ElectroLogIXS™ platform, introduces the rail industry's first redundant solid-state crossing controller, offering backward compatibility alongside new capabilities.

Engineered as a direct replacement for the outgoing IXC-20S™ module portfolio, the IXC-R20 is designed to maintain safe operations, reduce emergency service calls, and help railroad maintainers meet regulatory requirements. Its introduction supports KB Signaling's broader strategy of delivering technology that adapts to evolving needs while preserving the investments customers have already made in proven systems.

#### **Redundant Solid-State Design**

At the core of the innovative IXC-R20 module is its high-availability design: a fully solid-state configuration supporting redundant operation. The module can be paired in active/standby mode – automatically transferring control to the standby unit in the event of a fault. That failover process occurs without user intervention, maintaining full crossing functionality while minimizing disruption.

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“This is the first solid-state redundant crossing controller in the industry,” said Aric Weingartner, director of products at KB Signaling. “That redundancy changes the conversation for a lot of railroads – especially those that have continued to use interface relays because of system availability and reliability concerns.”

This architecture is already drawing attention from Class I railroads that had not previously adopted solid-state crossing controllers. With electromechanical relay systems becoming more difficult and expensive to maintain, KB Signaling’s IXC-R20™ Integrated Crossing Control Module combines enhanced reliability with reduced long-term cost.

### **Streamlined Maintenance and Lamp Monitoring**

The IXC-R20 module also addresses a critical operational challenge: meeting federal maintenance requirements efficiently. With the U.S. Federal Railroad Administration (FRA) rules mandating 30-day inspections at active crossings, the new module includes a one-touch automated test feature that triggers a full crossing activation sequence and simultaneously records all operational metrics.

“These are the kinds of tools that make a real impact for the people maintaining the system,” said Paul Harper, product manager – highway crossing systems at KB Signaling. “With the IXC-R20 module, they can test the entire crossing, get the data they need, and instantly walk away with a comprehensive report.”

In addition, integrated current sensing enables built-in lamp monitoring – replacing the need for separate current detection hardware and enabling more responsive diagnostics. Lamp failures are among the most common causes of performance degradation, and real-time current monitoring provides earlier visibility into emerging issues.

All operational data – flash rates, voltage and current levels, activation logs – is available to KB Signaling’s Wayside System Data Management Module (WSDMM™). The WSDMM aggregates data from across the crossing network, delivering visualization tools and trend analysis to help identify system degradation before it results in failure.

“Troubleshooting crossings has often required guesswork or time-consuming simulations,” said Johnathan Arends, product solutions engineer at KB Signaling. “Now we have exponentially more information for every train move – speeds, states, activation data. If something fails, we can pinpoint the cause far faster and more accurately.”

### **Seamless System Integration**

The IXC-R20 module is fully compatible with the existing ElectroLogIXS™ XP4 platform and supports direct, plug-and-play replacement of the IXC-20S. No rewiring or application reprogramming is required. Customers can retain their existing personality modules and software configurations, helping streamline deployment and validation.

The module also eliminates the need for a previously required external interface panel – reducing space and complexity inside the equipment bungalow. This update helps reduce system cost and improve enclosure layout, particularly for customers upgrading legacy installations.

“Everything about the IXC-R20™ Integrated Crossing Control Module was designed to make migration easier,” said Harper. “Whether supporting new construction or replacing aging equipment, it’s a solution built to meet railroads where they are.”

Each module supports multiple gate, lamp, and bell outputs, with up to four IXC-R20s installable per chassis – delivering up to 80 amps of lamp drive capability and up to 16 gate positions across entrance and exit paths.

### **Built for Safety and Compliance**

Although not required in North America, the IXC-R20 module is on track to receive Safety Integrity Level 4 (SIL 4) certification by the end of 2025. This globally recognized benchmark is increasingly included in American Railway Engineering and Maintenance-of-Way Association (AREMA) guidelines and supports the module’s readiness for international deployment.

Final validation and testing are now underway, with general product availability targeted for Q3 2025. KB Signaling has prepared launch volumes for initial customer evaluations and continues to align the system with the evolving safety and connectivity requirements of both domestic and global rail markets.

“Certification is just one part of the picture,” said Weingartner. “What really matters is the everyday performance – the uptime, the ease of use, and the ability to make more informed decisions with better data. That’s what the IXC-R20 module delivers.”

### **About KB Signaling**

KB Signaling develops and supplies unparalleled end-to-end wayside and onboard conventional signaling Control, Command, and Signaling (CCS) platforms and solutions. A trailblazer, we are driven to provide the best solutions for improved safety, performance, and lower overall operating cost for today’s transit and freight railway systems and operators in North America and beyond. Our 700 team members have a deep customer commitment that fuels us to deliver solutions for improved rail performance, safety, and overall operating cost. KB Signaling is a member of the Munich, Germany-based Knorr-Bremse, the global market leader in braking systems and a leading supplier of other safety-critical rail and commercial vehicle systems. Follow us on LinkedIn at <https://www.linkedin.com/company/kb-signaling>.

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