

Hazard Monitoring & Grain Management Solutions



Constantly on Guard

Industry leading hazard monitoring systems

- Easily expandable HazMon system to meet your budget and regulatory needs
- Straightforward installation, maintenance, and operation
- Minimize nuisance alarms and system downtime
- Maximize process efficiency and system uptime
- Field-proven solution with thousands of sensors in use today



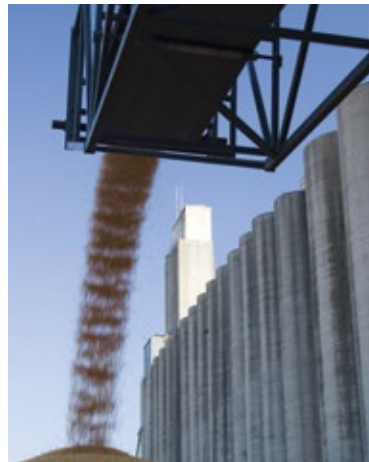
Improving safety and operating efficiency at your facility

CMC offers unparalleled protection for your facility, and for your most valuable asset – your people. Our dynamic suite of digital hazard and operational monitoring systems is purpose-engineered to ensure your industrial machinery is operating properly in environments where there is a presence of combustible dust in the atmosphere.

If left unchecked, a hot bearing or a misaligned conveyor belt can result in a process shutdown and costly machine damage. A worst-case scenario is a catastrophic event triggered by unmonitored hazardous conditions in explosive environments. Far too often, industrial accidents result in serious injury or tragic loss of life because failing machine components are the source of ignition.

We partner with integrators and facility managers to provide an operation-wide digital monitoring system for all sizes of facilities, from small country elevators to major export terminals. We not only provide industry-leading HazMon and Grain Management Systems, but also site audits, inspections and training as part of our unique Road To HazMon Safety™ program.

Typical CMC Hazard Monitoring Applications



Grain Elevators



Feed Mills



Flour Mills



Bulk Materials Handling



The Brains of the Operation

Field proven, easy to install and expandable

CMC manufactures Hazard Monitoring and Grain Management system controllers for both large and small facilities. These EZSentinel controllers are fully compatible with virtually any machine found in a grain, feed or milling facility. Intuitive operator interfaces provide a stream of real-time information and fault-condition alarms. Machine controls and interlocking are all fully programmable.

The added benefits of monitoring

CMC monitoring solutions not only protect people and property, they protect profits. With the ability to monitor operational performance at a component level, control centers receive early notice of imminent failures that can shut down vital machinery at critical times. CMC solutions enable a practical system for predictive maintenance, allowing component servicing or replacement during scheduled downtimes or servicing intervals.

A false alarm is more than a nuisance.

Legacy hazard monitoring systems have the reputation of reoccurring false alarms. This not only leads to unnecessary interruptions in operations, but lower levels of safety in the plant. Operators become apathetic and tend to bypass and ignore system alarms. Meanwhile real threats are not taken seriously, often resulting in process downtime, product waste, and unsafe conditions. Direct control of machinery is tough to implement with these legacy systems. CMC Hazard Monitoring systems greatly reduce false alarms increasing attentiveness to safety.



EZSENTINEL 128

STAND-ALONE HAZMON OPERATOR INTERFACE/PLC COMBINATION

- Small to medium-sized facilities, monitors up to 15 machines and 128 sensors
- SD memory card logs sensor and alarm data
- Output relays for external horns, signal lights and programmable machinery interlocking



WS2-HM

NEXT GENERATION HAZMON OPERATOR INTERFACE/CONTROLLER

- Simple set up, user-friendly navigation and machine graphics
- At-a-glance alarm location and condition identification
- Works with any PLC or PC - No annual license fees



WS2-GM

GRAIN MANAGEMENT OPERATOR INTERFACE/CONTROLLER

- Seamlessly bridge from analog to digital technology - economically
- Straight-forward configuration - No HMI/PLC programming
- The brains in The Grain Ranger™ system



Your Complete Hazard Monitoring Solution

HazMon-in-a-Box™ – packaged and integrated for your operation

HazMon-in-a-Box™ takes the hassle out of hazard monitoring installation. Easy-to-deploy kits contain all the essential intrinsically safe sensors, conduit, connectors and hardware required for installation on each of your machines. There are no loose parts to misplace and no missing pieces. HazMon-in-a-Box ensures efficient and consistent installations site after site. We also provide installation best practices and training for the people installing your CMC Hazard Monitoring system.

Stainless Steel HazMon

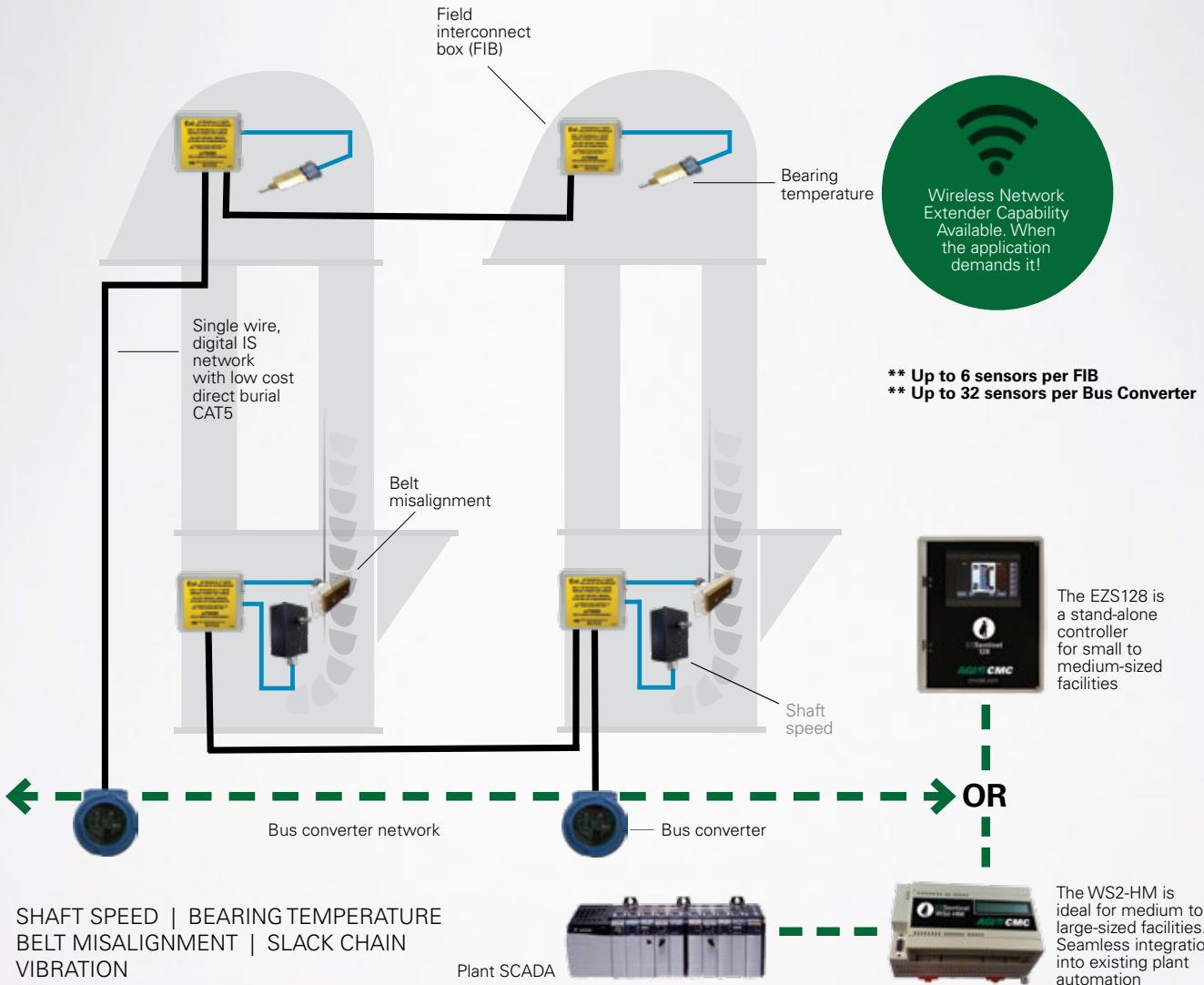
CMC also offers a full range of HazMon-in-a-Box Kits in stainless steel for use in extremely harsh environments such as those found in fertilizer plants. Contact the factory for more information on how we can help to keep your operations safe and efficient...even in the harshest of places.

What is Intrinsic Safety and how does it benefit you with CMC's HazMon system?

Intrinsic Safety (IS) is a design feature that enables the safe operation of electrical equipment in hazardous areas by ensuring that the available electrical and thermal energy in the system is always low enough such that ignition of the hazardous atmosphere cannot occur. This is achieved by ensuring that only low voltages and currents enter the hazardous area, and that no significant energy storage is possible.

- Integrated IS HazMon system is designed specifically for grain and feed facilities — not just a loose collection of parts
- System is easy to work on — perform maintenance or repairs without shutting off power on IS portion of the network
- Installation costs are drastically reduced by limiting expensive conduit runs and XP enclosures

BUILD YOUR HAZMON SOLUTION WITH COMPONENTS THAT WORK TOGETHER FOR YOU AND YOUR FACILITY



Network Components and Sensors



Just plug, play and test with the EZTest HazMon system tester

- Easy-to-use handheld tester
- Simple good/bad test for sensors
- Sensor emulator streamlines commissioning



mBC083 Atex Bus Converter

- Up to 32 sensors on each mBC083 Bus Converter
- Approved for ATEX Zones 0, 1, 2, 20, 21 & 22
- Glass window for safe at-a-glance device and network status



mTB006 Field Interconnect Box with AdaptaNet

- Easily connect up to 6 sensors per box
- AdaptaNet automatically detects and isolates faulty sensors
- Intrinsically Safe when used with mBC-series Bus Converters



mRS001 Intrinsically Safe Shaft Rotation Sensor

- Non-contact measurement reads magnetic pulses
- Measures speeds from 1 to 1,000 RPM
- Easily integrates into single-wire digital HazMon network

Sensors



mTS012 Stainless Steel Temperature Sensor

- Ideal for use in bearing temperature monitoring applications
- Fast, accurate temperature readings – no calibration required
- Available in 4" and 6" standard as well as a range of custom lengths



mTS015 Brass Temperature Sensor

- Ideal for use in belt alignment monitoring applications
- Supplied with 6' of cable and a modular jack for easy network connection
- Housed in a threaded brass rod for use in harsh environments



mTS011 Lug Style Temperature Sensor

- Ideal for monitoring temperature on any flat surface
- Tin plated copper lug for excellent thermal conductivity
- Intrinsically Safe when used with the mBC- series Bus Converters



mVM001 Intrinsically Safe Vibration Sensor

- Ideal for monitoring hammermills and fans for imbalance
- Accurately outputs real-time RMS and peak velocity
- Intrinsically Safe when used with the mBC-series Bus Converters



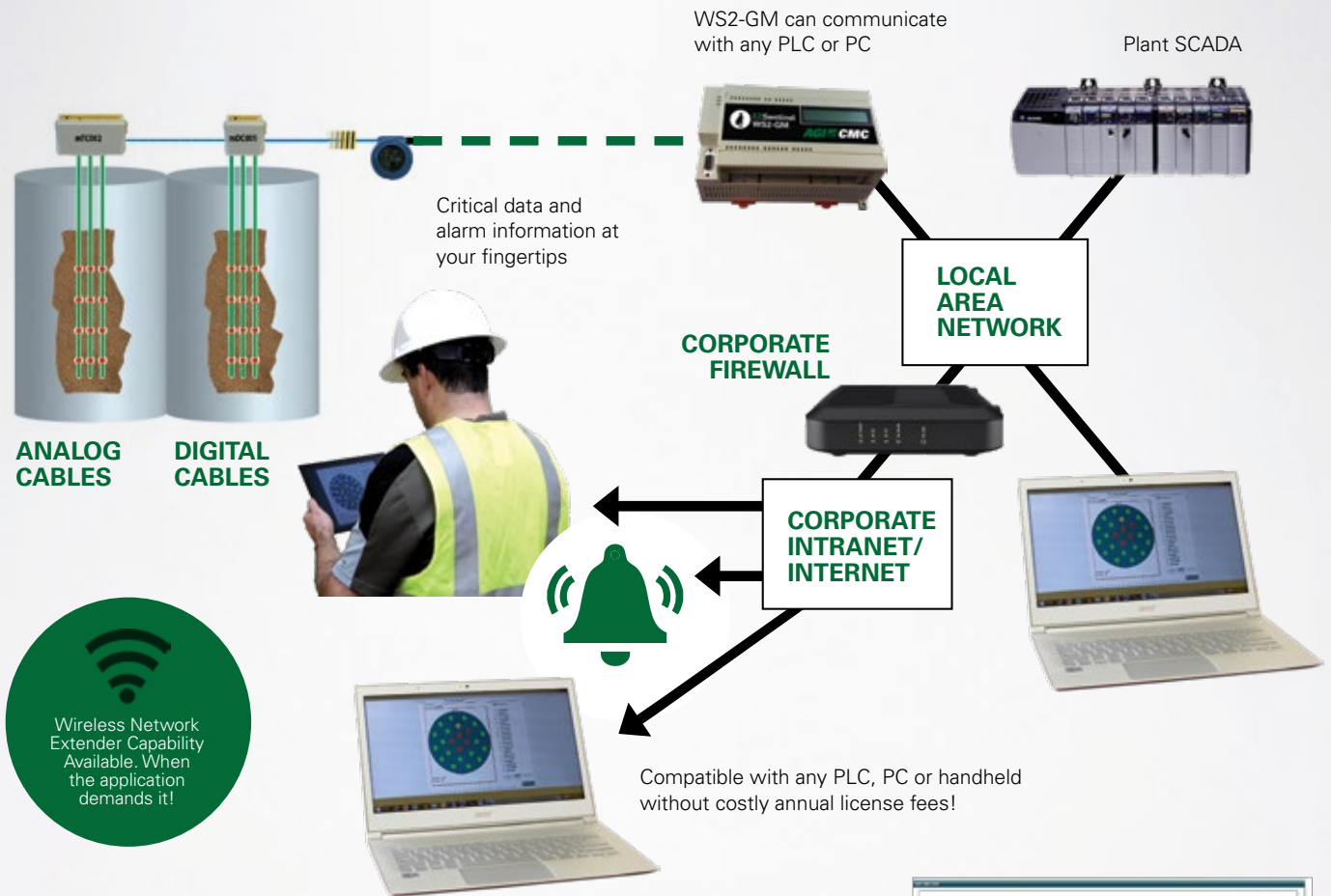
mIP001 Inductive Proximity Sensor

- Use on product overflow relief doors on chain, bucket, and belt conveyors
- Detects the presence or absence of metallic objects or surfaces
- Single-wire, Intrinsically Safe design – reduces cable and conduit costs

The Grain Ranger™

Leading the way in digital grain management

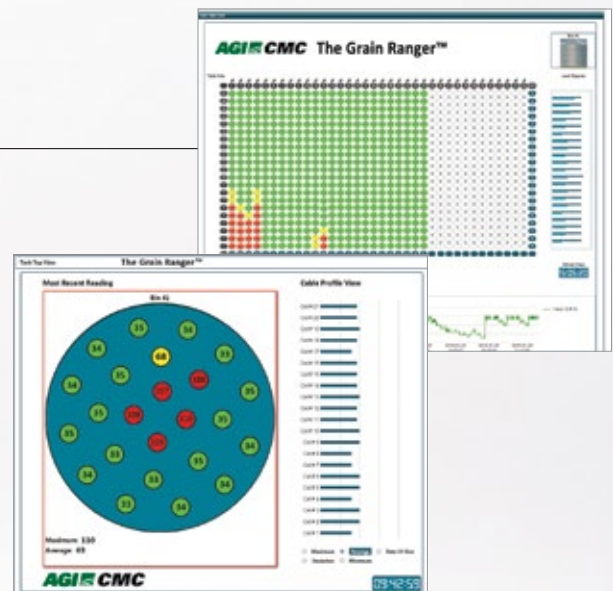
Communicates with most commercial grain temperature cables on the market.



- Seamlessly bridge from analog to digital technology – economically
- No punitive software contracts or hidden fees – hassle free
- Locally hosted on your own network for a more secure solution
- No PCs or servers required for data storage reduces maintenance

Intuitive Interface and Reports

Intuitive screens and user interface enable straightforward system navigation and configuration for at-a-glance temperature and alarm reporting.



Building A Culture Of Safety

CMC will partner with you every step of the way on the Road To HazMon Safety™

Our factory-trained application engineers and field technicians will work with you to provide:

- Guidance on OSHA and NFPA standards for HazMon
- Site inspections and system audits – before and after installation
- Installer training to ensure consistent, reliable installations site after site
- Operator training to ensure that you get maximum utility from your CMC system



Wireless Technology

The Benefits & Challenges

With today's diverse industrial application operations and procedures, many organizations consider implementing wireless networks for their communication requirements. While wireless networks have been known to increase efficiency and productivity for applications in remote and harsh areas, while maintaining continuous, secure communication; there are more factors that should not be overlooked. Before committing to installing a wireless network, several points should be carefully considered, such as radio signal transmission, power requirements and availability, response rate and many more. At CMC, we take a pragmatic approach to wireless monitoring and have produced a wireless essentials guide: *Wireless Technology: The Benefits and Challenges* to provide readers with the information and resources to decide where wireless may be safely deployed in a facility, in addition to identifying several advantages and disadvantages of utilizing wireless in hazardous monitoring system applications.

To obtain a free copy of this informative whitepaper - contact CMC or visit our website to download your copy. We will provide unparalleled assistance in planning your next hazard monitoring system from the first step to the last whether using wired or wireless technology we will put your needs first.





CMC is an AGI Brand.

AGI is a leading provider of equipment solutions for agriculture bulk commodities including seed, fertilizer, grain, and feed systems with a growing platform in providing equipment and solutions for food processing facilities. AGI has manufacturing facilities in Canada, the United States, the United Kingdom, Brazil, South Africa and Italy and distributes its products globally.



1.888.421.4425 | sales@cmciel.com | cmciel.com

AGGROWTH.COM      @aggrowthintl

HM BR Rev A01 0219