

The AGI logo is repeated on a green background on the left side of the page. It features the letters "AGI" in white, bold, sans-serif font, with a stylized graphic element to the right.

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 500,000 sensors in use today



Improving Safety and Operating Efficiency at Your Facility

AGI 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 AGI CMC Hazard Monitoring Applications



The Brains of the Operation

Field Proven, Easy to Install and Expandable

AGI 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

Our 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. AGI CMC solutions enable a practical system for predictive maintenance, allowing component maintenance 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 leads to unnecessary interruptions in operations and 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. AGI CMC Hazard Monitoring systems greatly reduce false alarms increasing attentiveness to safety.

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







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
- Complete automation with no additional PLC



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 brain 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 Hazard Monitoring system.

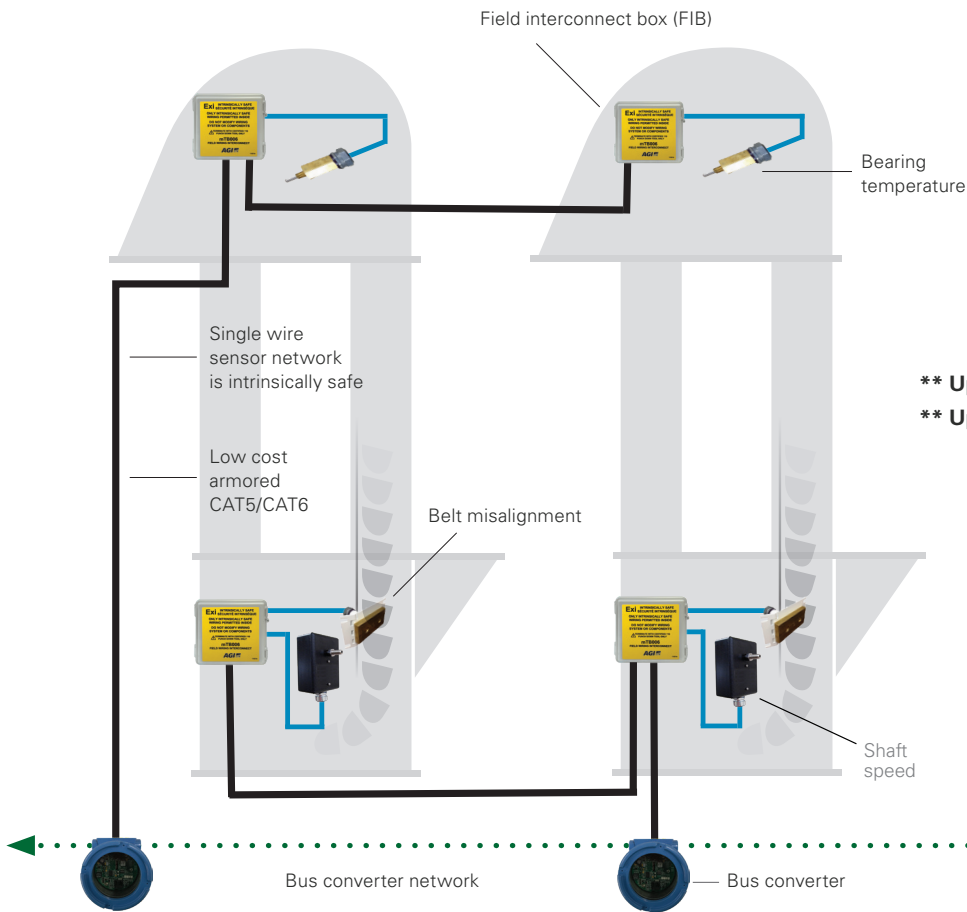
Stainless Steel HazMon

AGI 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 us 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 AGI 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



**** Up to 6 sensors per FIB**
**** Up to 32 sensors per Bus Converter**



The EZS128 is a stand-alone controller for small to medium-sized facilities

OR



Plant SCADA



The WS2-HM is ideal for medium to large-sized facilities. Seamless integration into existing plant automation

SHAFT SPEED | BEARING TEMPERATURE
 BELT MISALIGNMENT | SLACK CHAIN
 VIBRATION

Network Components and Sensors

Network Components



EZTest HazMon System Tester

- Plug and play 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



Diaphragm Switch/Sensor

- Suitable for bin level monitoring and plugged chute
- Simple installation and operation with minimal maintenance
- Suitable for both, HazMon and Grain Management applications



mAM001 Analog Input Module

- Can integrate any analog output sensor to the AGI CMC network
- Suitable for 4-20mA and 0-10V sensors
- Allows integration of grain level and CO₂ sensors

Locally hosted on your network for a more secure solution

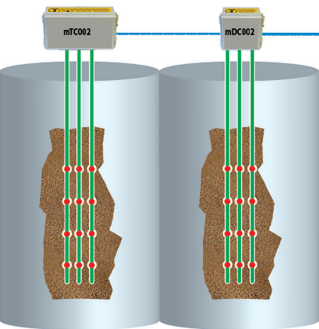
Grain Ranger uses AGI CMC's single-wire digital network to quickly and accurately send the temperature data back to the WS2-GM. Transmitting this information from the bin deck over longer distances can be accomplished using our field-proven network extender radio system. The WS2-GM then communicates via your own secure network to your plant SCADA or PCs and, if desired, via your own corporate intranet or the internet to remote handheld devices or PCs.

Grain Ranger offers unparalleled versatility; it can communicate with both digital or analog grain cables allowing you to build the system you want as your budget allows.



WS2-GM controller can communicate with any PLC or PC

Plant SCADA



ANALOG CABLES

DIGITAL CABLES



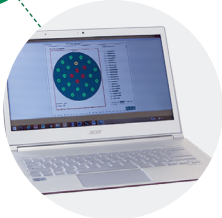
Remote access to data and alarms — critical information at your fingertips



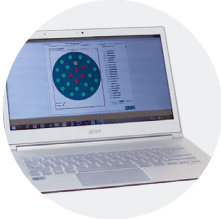
LOCAL AREA NETWORK



CORPORATE FIREWALL



CORPORATE INTRANET/INTERNET



Grain Ranger is compatible with any PLC, PC or handheld device without costly annual license fees!



AGI is a global leader in supplying farm and commercial customers with the manufacturing, planning, and engineering of full equipment solutions for grain, seed, fertilizer, feed, and food. AGI's expertise enables the storage, blending, mixing, conveying, conditioning, processing, and protection of agricultural products and inputs worldwide.

Your safety is our highest priority.

Please read and understand the operator's manual and safety decals before using. Use and maintain products properly, and do not modify. Keep guards in place when operating and follow all product manuals and safety decals. For all AGI products, if guards, safety decals, or manuals are damaged or missing, contact your AGI sales or dealer representative for replacements. Images and information contained in this brochure are presented for general information.

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198 Commerce Drive, Winnipeg, Manitoba, Canada R3P 0Z6

P 1.855.293.5607 | sales-cmc@aggrowth.com | aggrowth.com/cmc

     @aggrowthintl

AGGROWTH.COM