THE GRAIN RANGER™

CMC

COMMUNICATES WITH ANY COMMERCIAL GRAIN TEMPERATURE CABLE ON THE MARKET

PREVENT PROFITS FROM SLIPPING THROUGH YOUR FINGERS DUE TO SHRINKAGE AND SPOILAGE

- Bridge from analog (thermocouple) to digital technology, economically
- No punitive software contracts or hidden fees — hassle free
- Locally hosted on your own network for a more secure solution

ADVANCED SOLUTIONS FOR GRAIN STORAGE MANAGEMENT

THE GRAIN RANGER™

Asset Protection During the Grain Storage Cycle

CMC's Grain Ranger will improve your facility's grain management resulting in reduced energy consumption, shrink and spoilage throughout the storage cycle. Have peace of mind by knowing what's happening inside the bin — no more guesswork. Improve labor utilization with real-time dashboards at your PC, tablet or cell phone, and keep your people out of the bins.
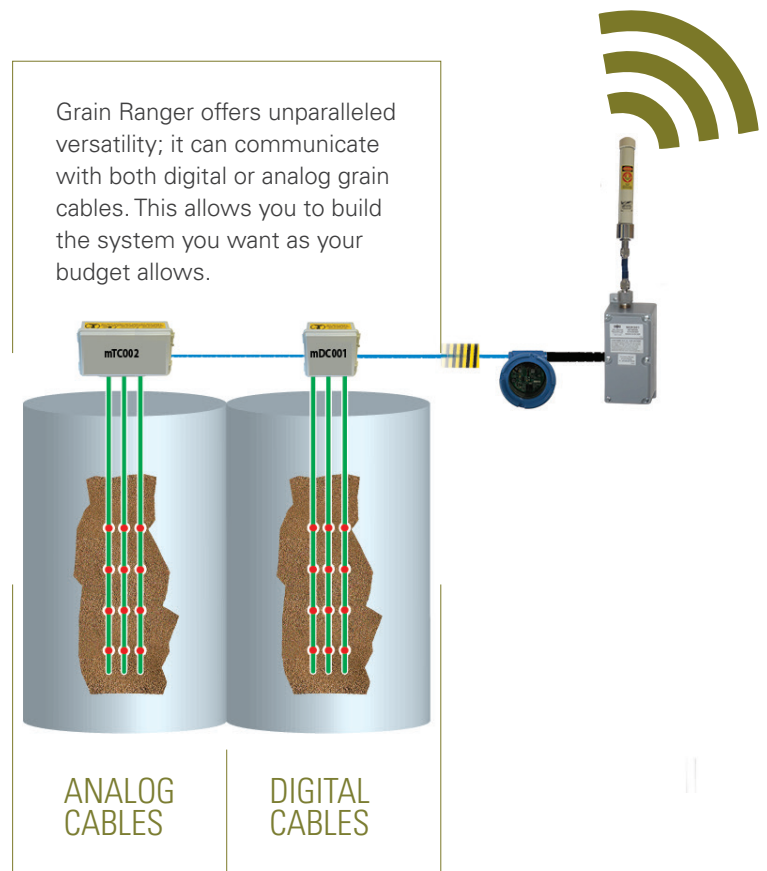
MARKET CARRY

Many elevators sell their grain early in the year rather than risk storing grain and taking full advantage of seasonal market prices. This makes sense unless you have grain monitoring and control capabilities. Market timing premiums of $0.25 to $0.50 per bushel are not unusual.

SPOILAGE AVOIDANCE

Hot spots in stored grain are a sign of microbial activity that can lead to spoilage. As the size of grain bins and commodity prices increase, loss of a bin of grain due to spoilage can be catastrophic. Graphical analysis of the temperature readings over time, supported by trend alarms, high-level alarms via email/text messaging allow you to proactively deal with hot spots or poor air distribution to minimize the potential for grain spoilage. The loss of one of your bins could be financially disastrous. For example, 750,000 bu. of corn x $3.45 (Dec. corn) = $2,587,500 in potential losses.

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

ANALOG CABLES

DIGITAL CABLES

SHRINK REDUCTION

Shrinkage can have a huge impact on your grain storage economics. Over-aeration will typically lead to over-drying of the grain in the bottom of the bin. Over-drying of 1.0%–2.0% of moisture is typical. Worse, however, is the fact that you spent money to over-dry your grain. For your operation (1.5M bu), a 1% shrink reduction for corn could be worth over $50,000!

Field-proven wireless communications

WS2-GM controller can communicate with any PLC, PC or handheld device

PLANT SCADA

LOCAL AREA NETWORK

Remote access to data and alarms. Critical information at your fingertips

CORPORATE FIREWALL

CORPORATE INTRANET/ INTERNET

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

Locally Hosted on Your Own Network for a More Secure Solution

SHARING THE KNOWLEDGE

Grain Ranger uses 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, from there via your own corporate intranet or the internet to remote handheld devices or PCs.

THE GRAIN RANGER™ DIFFERENCE

DIGITAL RELIABILITY & TECHNOLOGY AT ANALOG PRICES

Grain Ranger makes economic sense for both new and retrofit projects, seamlessly communicating with both analog and digital cables. This smart design enables a stepped migration from legacy analog systems to a stateof-the-art digital network and digital cables. Upgrade as your budget allows it.

IMPROVED SAFETY

Workplace injury and confined space entry has become a serious issue for the grain industry. The capabilities of the Grain Ranger system can reduce the need for climbing and/or entering your grain bins. Probing grain bins to detect heating due to moisture migration, poor air flow distribution or pest activity are serious hazards.

LABOR SAVINGS

Managing and conditioning your grain manually can consume labor hours better spent elsewhere. These costs can be minimized while at the same time getting better information and analysis using the Grain Ranger system.

INTUITIVE INTERFACE & REPORTS

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

THE GRAIN RANGER FAMILY

WS2-GM CONTROLLER

• Up to 1,024 cables, 36 cables per bin, 255 bins per WS2

• Browser accessible — no software required

• Cost savings through easy implementation and configuration—no PLC/HMI programming required

The handheld EZ Tester tool greatly simplifies installation and maintenance of the system.
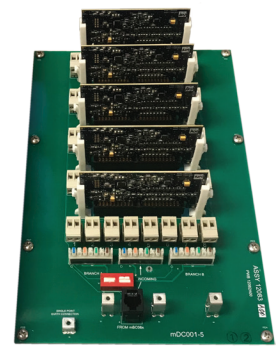
INDUSTRIAL-DUTY CABLE & COMPONENTS

Stainless steel hanger and tough, digital cable jacket with steel core. All components in the Grain Ranger family are designed for extended life in the harsh environment that is the inside of a grain bin. Our system provides accurate, reliable grain temperature information — where and when you need it.
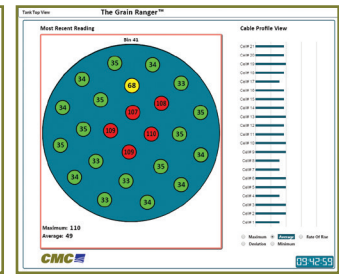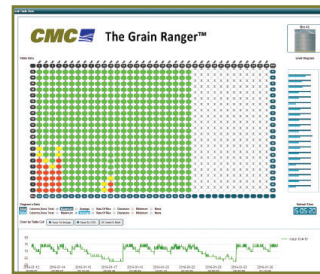
• Configured at the factory or onsite with bin and cable number

• If one cable fails all others remain operational

• Accuracy +/- 2°F (1°C)

• Each cable on a separate channel in mDC002 module

• Up to 40 cables plug and play in each mDC002 module

GRDC1   mDC002