28 Years Of Experience
SINCE 1997

ITG®
Infotech Group

TEMPERATURE MONITORING AND SMART CONTROL SYSTEMS
FOR SAFE GRAIN STORAGE

www.itg.bg
www.infotechgroup.com.tr

Risks That May Be Encountered If a Temperature Control System Is Not Used

PRODUCT LOSS
Direct Financial Damage
Every 1°C difference inside the silo is money straight out of your pocket.

MOISTURE AND TEMPERATURE FLUCTUATIONS
Spoilage, Mold, and Infestation!
Uneven heat distribution causes hot spots, grain spoilage, and severe loss of quality.

UNEVEN TEMPERATURES
If a single section overheats, the entire batch/lot is put at risk.

REDUCED YIELD: WEAKENED BRAND VALUE
Dissatisfied Customers
A lack of temperature control doesn't just ruin your grain; it destroys your brand reputation.

SPOILED GRAIN = WASTED TIME
Sorting, recycling, and delivery delays slow down the entire operation and disrupt the production schedule.

ENERGY WASTE: ESCALATING COSTS
Inefficient storage inflates energy consumption and drives up your utility bills.

SUDDEN TEMPERATURE SHIFTS = EQUIPMENT FAILURE
Sudden and uncontrolled temperature fluctuations constantly strain the equipment. As a result, breakdown frequency increases, and maintenance costs soar.

NON-COMPLIANCE = LEGAL SANCTIONS
Failure to meet industrial storage standards can result in severe legal and regulatory penalties.

Advantages Secured When a Temperature Control System Is Used

Gain the Upper Hand with the Temperature Control System!

Controlled Temperature = Preserved Quality
By maintaining thermal balance, it guarantees grain quality. Losses decrease, profits increase.

Early Warning = Zero Loss

Smart sensors detect risks before they arise. Hot spots, spoilage, insect infestation, and mold become a thing of the past.

Full Monitoring = Maximum Security

All processes are monitored and logged in real-time. This ensures sustainable quality and strengthens brand trust.

Uniform Temperature = Consistent Quality at Every Point

Balanced temperature is achieved in every single corner of the silos. The result: Homogeneous quality, zero shrink/loss!

Energy Efficiency = Low Cost

The temperature control system utilizes energy only as much as needed. Utility bills drop, and the environment is protected.

Stable Temperature = Long-Lasting Equipment

Temperature fluctuations are eliminated, reducing system fatigue. Maintenance frequency drops, and equipment lifespan is extended.

Early Intervention = Time Savings

Potential issues are detected early, ensuring operations run without interruption. Your time, your efficiency.

Consistent Quality = Strong Brand

Identical quality in every batch, maximum satisfaction in every delivery. Consistency is the strongest shield for your brand value.

Transparent Logging = Full Compliance

The entire thermal history is stored digitally, providing total transparency and seamless compliance during regulatory audits.

Why Should You Choose Us?

ITG is a company that manufactures temperature control systems and temperature-integrated fan management solutions for grain (wheat, corn, barley, paddy, sunflower, hazelnut, chickpea, etc.) storage facilities, operating in more than 60 countries across Europe, Asia, and Africa.

With our innovation efforts sustained for over 28 years, we provide continuous development in temperature control systems, serving the industry with our expert team.

SMART SOLUTIONS FOR EVERY TYPE OF WAREHOUSE AND SILO
Regardless of whether it is a steel silo, concrete silo, or flat storage, we develop customized design systems that are perfectly compatible with every type of storage facility.

THE PRIVILEGE OF CUSTOMIZED PRODUCTION FOR YOUR PROJEC
All our equipment is manufactured specifically for your project under ITG engineering. This ensures maximum efficiency for your facility.

FULLY DIGITAL CONTROL SYSTEM
All temperature, moisture, and ventilation processes are managed entirely through digital automation. You maintain absolute control at every moment and from every location.

SMART VENTILATION AND FLEXIBLE SENSOR REPLACEMENT
Sensor replacement can be carried out even when the silo is completely full. The process continues uninterrupted without halting production speed.

HIGH-PRECISION TEMPERATURE PROBES
Our patented probes, which feature the lowest friction coefficient, deliver highly accurate measurements and reliable data.

TENSILE STRENGTH GUARANTEE UP TO 3500 KG
A durable structure translates directly to long-lasting performance. It offers maximum durability even under the harshest conditions.

SMART DATA MANAGEMENT WITH ITG CLOUD
Enjoy 24/7 monitoring, analysis, reporting, and instant access to historical data. All control is right at your fingertips with cloud technology.

ATEX-CERTIFIED SAFETY STANDARDS
Our systems against explosion risks are fully ATEX-certified. This guarantees safe, legal, and compliant usage according to international standards.

ISO QUALITY CERTIFICATE ASSURANCE
Compliant with quality standards at every stage with ISO 9001 Quality Management System, ISO 14001 Environmental Management System, and CE marking.

COMPREHENSIVE WARRANTY AND SERVICE
Continuous maintenance, repair, and service support are provided both during and after the warranty period. We are by your side in every situation.

24/7 SUPPORT, INSTALLATION, AND CONSULTANCY
Our expert team offers professional support at every phase, from planning to installation. You receive fast, solution-oriented answers to your questions at any time.

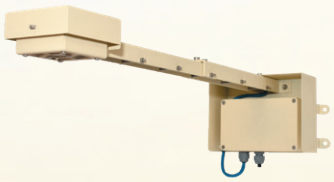
REGISTERED TRADEMARK ASSURANCE
ITG is an officially registered trademark. Every service we provide is backed by certified quality and trust.

1 Temperature Probes

Measurement thanks to digital sensors
- Requires no calibration
- No signal/measurement drift over time
- Operates with the same accuracy for many years

Slim and Durable Structure
- 9.8 mm diameter does not disrupt grain flow
- High tensile strength; no risk of snapping during loading and unloading
- Industrial, armored cable structurei
- IP66 protection class
- Service life exceeding 20 years

2 ITG W.S. & Rain Sensor



The most common mistake made in grain storage is this:
Activating ventilation when ambient outdoor weather conditions are not suitable.

This mistake leads to:
- Moisture absorption by the grain
- Mold formation
- Energy loss

ITG WS (Weather Station) and Rain Station eliminate this risk and base your ventilation decisions on actual outdoor environmental data.

Ambient outdoor temperature (°C)
- Relative humidity (RH %)
- Outdoor precipitation status

Prevents Incorrect Ventilation Thanks to WS and RS Data
- The operator does not make assumptions
- Reduces the need for manual decision-making
- The system manages itself automatically
- Operating range between -40 °C and +85 °C
- Suitable for all climate zones

It doesn't matter if it is cold, hot, or humid — reliable measurement in every region. WS & RS is not a standalone device; it is the decision-supporting sensor ecosystem of the ITG infrastructure

3 TCP (Control Panel)

Durable Industrial Design
- IP65 protection class
- Aluminum or sheet metal enclosure options
- Structure suitable for harsh field conditions
- Standalone field operation
- Modular and flexible structure
- Long-lasting industrial design
- Full compatibility with the ITG ecosystem

Long service life and low maintenance requirements. Compatible with facilities ranging from small grain stores to massive industrial grain terminals. Temperature values can be viewed directly on-site via the LCD screen. TCP panels operate seamlessly without the need for a computer or external software. Even when the PC is turned off, control continues in real-time without interruption.

4 ITG UCP

The Brain of Healthy Grain Storage:
Going beyond traditional control panels, ITG UCP consolidates temperature monitoring, ventilation management, and data analysis processes into a single smart platform. It tracks temperature, manages ventilation, logs data, and provides remote access. Furthermore, it operates without requiring an external PC. UCP features its own dedicated operating system. Thanks to this architecture, computer malfunctions do not affect the system, and there is zero risk of software crashes. Via an internet connection, UCP provides global access from mobile phones, tablets, or laptops anywhere in the world. UCP is not just a standard "panel". It is a proactive component that listens, analyzes, decides, executes, logs data, and can be managed remotely without pause. It is not a technology that merely monitors the system; it is a technology that completely commands and manages it.

5 Portable Temperature Monitoring Spear

The body of the temperature monitoring spear is equipped with three digital temperature sensors as a standard to enable temperature measurements at different grain levels. Temperature data obtained from each sensor is automatically displayed in sequence on the LCD screen every 4 seconds, providing the user with a comprehensive temperature analysis. The reading unit, handle, and tip of the device are manufactured from high-quality aluminum, while its body is made of durable stainless steel. Featuring a completely waterproof design, this portable temperature monitoring spear offers a user-friendly and comfortable experience with its ergonomic design.

6 Switch Box (Distribution Boxes)

Durable and Secure Enclosure. Aluminum enclosure with IP66 protection class.
Engineered to provide superior protection against dust, moisture, and harsh environmental conditions. Compared to many standard solutions using plastic enclosures, our Switch Box junction boxes are designed with a focus on long service life and high reliability.

7 ITG Cloud

Risks in grain storage do not follow working hours. Risks like hot spots, moisture increase, or a technical malfunction can occur at night, during the weekend, or while you are away from the site. ITG Cloud removes the grain storage process from a physical location and transforms it into a management system accessible from anywhere, at any time. ITG Cloud collects, processes, and presents all data coming from ITG systems to the user in a cloud environment.

From a single platform
- Silo temperatures are monitored
- Alarms and warnings are received Ventilation is controlled (with UCP Support)
- Reports are generated
- Historical data is analyzed

Accessible to ITG Cloud via
- Mobile phone
- Tablet
- Laptop

can be securely accessed. Even if you are not at the storage site, you maintain absolute control.

Instant Notifications and Alarms
When the system detects an anomaly:
Temperature spike
ITG Cloud:
- Developed and managed by ITG
- Fully compatible with ITG hardware
- Built on grain storage science

"It is not a generic cloud software, but a smart platform specifically dedicated to grain storage."
- 24/7 remote access
- Instant alarms and notifications
- Energy savings
- Decision support mechanism
- Full integration with the ITG ecosystem

Configurations

Manual Structure (Standard Structure)

AREAS OF APPLICATION

Flat Storage (Warehouse), Steel Silo, Concrete Silo

This manual system features the following specifications:

Temperature data collected from the temperature probes is displayed in real-time as °C values for each sensor on a 4-inch screen. It is simple to operate; temperatures are monitored by bringing the data to the screen using the arrow keys located on the device. These panels do not log data; they only display the live, currently read temperature on the screen. It can generally be recommended for low-tonnage facilities that do not exceed 28 temperature probes or 2 silos (warehouses). It is the most economical solution for live monitoring in grain storage facilities. The control panel enclosure features an IP65 protection standard and is suitable for outdoor installation.

ADDITIONAL EXTENSIONS / UPGRADES:

For System 2: Additionally, if a computer-aided system upgrade is performed, an outdoor weather station and moisture measurement device can be integrated into the system. For Systems 3 and 4: In addition to the standard structure, live monitoring and data logging can be carried out on a computer via RS485 communication and dedicated software. With the addition of a computer, the number of panels can be scaled up to display everything on a single screen, making it compatible with any facility layout.

SECTION 2: Manual Structure (UCP PLC Structure)

AREAS OF APPLICATION:

Flat Storage (Warehouse), Steel Silo, Concrete Silo

This manual system features the following specifications:

Temperature data collected from the temperature probes is displayed in real-time as °C values for each sensor on a 4-inch screen. By selecting the desired silo via the silo icons on the screen, all temperature data for that specific silo is pulled up and monitored. These UCP panels perform short-term data logging and display the live, currently read temperatures silo by silo. A single module can read up to 270 temperature sensors. However, depending on the requirements, more than one module can be deployed within a single facility. Thanks to an externally integrated module, the (W.S) UCP can read and display the outdoor ambient temperature and relative humidity in real-time. Due to its structural design, the UCP panel can be installed indoors or mounted inside outdoor electrical enclosures.

ADDITIONAL EXTENSIONS / UPGRADES:

For System 3: Requires no computer. It provides secure, web-based monitoring from any location via an internet connection (ethernet or Wi-Fi connection).

SECTION 3: Fan-Controlled Structure (UCP PLC Structure)

AREAS OF APPLICATION:

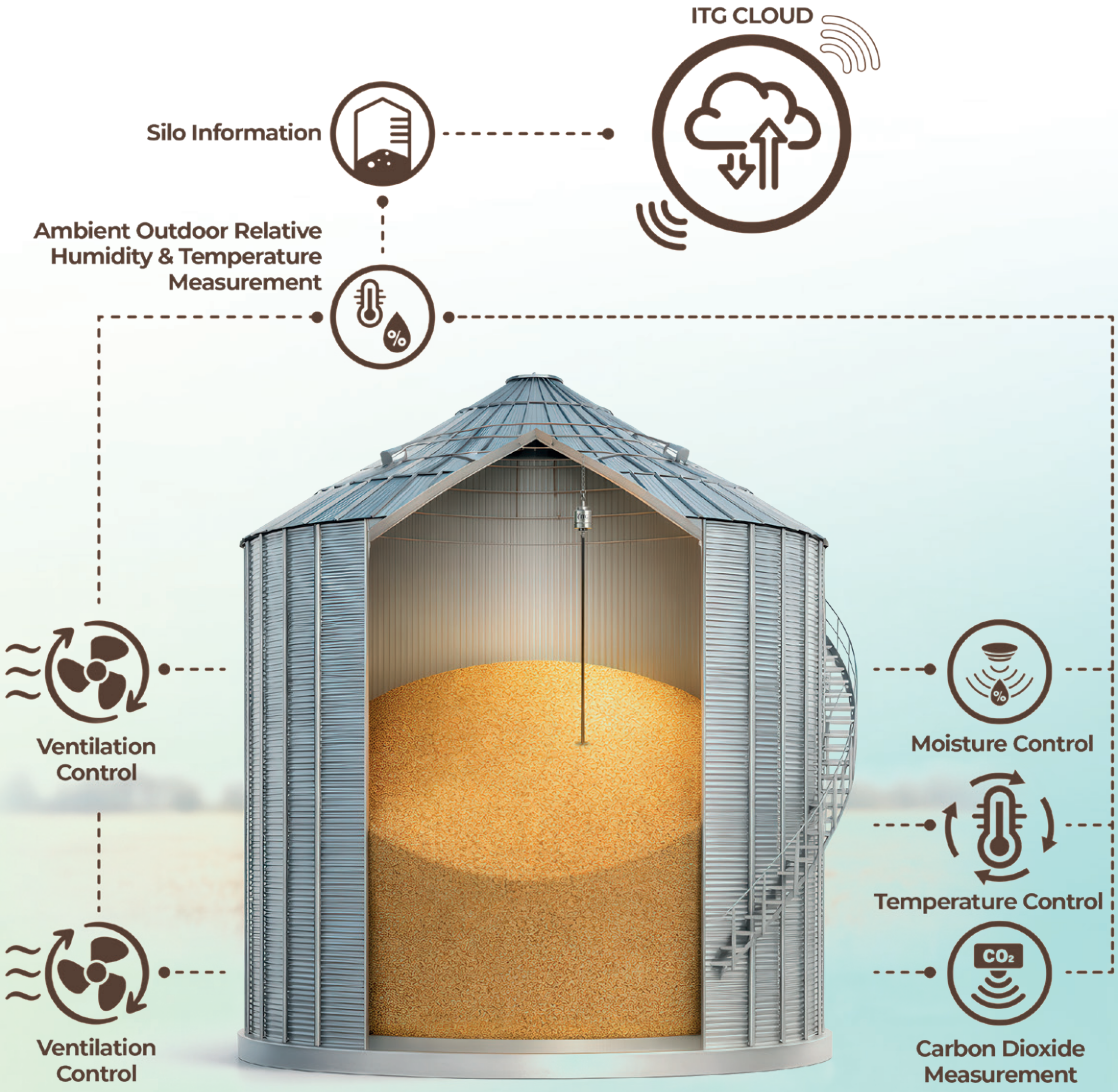
Flat Storage (Warehouse), Steel Silo, Concrete Silo

This manual system features the following specifications:

Temperature data collected from the temperature probes is displayed in real-time as °C values for each sensor on a 4-inch screen. By selecting the desired silo via the silo icons on the screen, all temperature data for that specific silo is pulled up and monitored. These UCP panels perform short-term data logging and display the live, currently read temperatures silo by silo. A single module can read up to 270 temperature sensors. However, depending on the requirements, more than one module can be deployed within a single facility. Thanks to an externally integrated module, the (W.S) UCP can read and display the outdoor ambient temperature and relative humidity in real-time. Thanks to an additionally integrated module, the control of the warehouse/silo ventilation fans is managed and fully integrated into the system. It is the most practical and technological solution for temperature monitoring in grain storage. Due to its structural design, the UCP panel can be installed indoors or mounted inside outdoor electrical enclosures.

ADDITIONAL EXTENSIONS / UPGRADES:

For System 3: Requires no computer. It provides secure, web-based monitoring from any location via an internet connection (ethernet or Wi-Fi connection).



ITG Cloud

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ITG Cloud removes the grain storage process from a physical location and transforms it into a management system accessible from anywhere, at any time. ITG Cloud aggregates, processes, and presents all data coming from ITG systems to the user in a cloud environment.

Via a single platform:
- Silo temperatures are monitored
- Alarms and warnings are received
- Ventilation is controlled (with UCP Support)
- Reports are generated
- Historical data is analyzed

ITG Cloud can be securely accessed via:
- Mobile phone
- Tablet
- Laptop

Even if you are not near the storage site, you maintain absolute control thanks to instant alarms and notifications in the event that the system detects an anomaly.bildirimler sayesinde kontrol sizde.

ITG Cloud:
- Developed and managed by ITG
- Fully compatible with ITG hardware
- Built directly on grain storage science

"It is not a generic cloud software, but a smart platform specifically dedicated to grain storage."

- 24/7 remote access
- Instant alarms and notifications
- Energy savings
- Decision support mechanism
- Full integration with the ITG ecosystem

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