

MCG 5200

WirelessHART Gateway

For terminal operators, automation engineers, asset-management teams, and compliance personnel who need a secure, scalable, and interoperable way to deliver WirelessHART field data into host systems, the MCG 5200 provides a high-capacity, browser-configurable gateway that supports up to 250 wireless devices. It converts field measurements, including level, BS&W, temperature, discrete alarms, and diagnostics, into host-readable Modbus or HART protocols over RS-485 or Ethernet, enabling seamless integration with SCADA, DCS, and inventory-management platforms.

Unlike older wireless gateways that provide limited visibility or require complex setup, the MCG 5200 offers strong embedded security, configurable register mapping, and full mesh-network diagnostics accessible via a secure web interface. Operators can view join status, network health, and device-level warnings, simplifying troubleshooting and improving uptime.

Designed for long-term system growth and modernization, it supports flexible antenna options, multiple host interfaces, and simple configuration via web, DTM/DD, or CSV tools, ensuring robust wireless performance across tank farms, refineries, terminals, and industrial facilities.



Key Features

High-Capacity Network Support

Supports up to 250 WirelessHART devices, enabling large facilities to scale without adding multiple gateways or restructuring their wireless architecture.

Flexible Host Integration

Provides RS-485 and Ethernet interfaces with Modbus and HART support, allowing compatibility with legacy PLCs and modern SCADA systems simultaneously.

Robust Network Diagnostics

Web tools display join status, signal quality, device health, and network performance, helping operators quickly identify and resolve communication issues.

Secure Wireless Communication

Encrypts all field messages and restricts register visibility, ensuring only authorized hosts can read device data and protecting system integrity.

Simple Configuration Tools

Offers browser-based setup, DTM/DD support, and CSV register mapping, allowing fast commissioning and easy reconfiguration without specialized software.

Multi-Protocol Data Handling

Converts WirelessHART measurements—including PV, SV, TV, and discrete alarms—into structured Modbus registers for seamless host-system consumption.

Typical Applications



TANK FARM MONITORING

Consolidates data from many WirelessHART gauges and transmitters into a single gateway, reducing wiring and simplifying centralized inventory reporting.



REFINERY INTEGRATION

Connects wireless level, temperature, and alarm devices to diverse host systems using Ethernet and RS-485, ensuring compatibility across refinery controls.



TERMINAL AUTOMATION

Streams WirelessHART measurement and alarm data into SCADA for product movement tracking, compliance reporting, and improved terminal visibility.



ASSET INTEGRITY SYSTEMS

Publishes device diagnostics and network health metrics, enabling predictive maintenance and faster resolution of sensor or communication issues.



ENVIRONMENTAL COMPLIANCE

Transfers temperature, BS&W, and relief-alarm data reliably to host systems, supporting accurate reporting for audits and regulatory programs.



WIRELESS EXPANSION PROJECTS

Provides a scalable platform for adding numerous WirelessHART nodes without additional gateways, minimizing integration cost during site upgrades.

Benefits



Improved Data Visibility

Real-time network and device diagnostics give operators clear insight into wireless performance, enabling quicker troubleshooting and reduced downtime.



Lower Integration Cost

Dual-interface design works with both legacy and modern hosts, reducing engineering time, eliminating converters, and simplifying system upgrades.



Enhanced Network Security

Encrypted communications and controlled register access protect sensitive measurement data, ensuring safe operation in critical infrastructure environments.



Scalable Wireless Growth

High device capacity supports large deployments, allowing tank farms or terminals to expand networks without additional gateways.



Reduced Operational Risk

Reliable communication of level, BS&W, and alarm data improves decision-making, protects inventory, and supports compliance with safety programs.



Fast, Flexible Commissioning

Intuitive web tools, DTM/DD setup, and straightforward register mapping enable rapid installation and easy long-term configuration updates.

Technical Specifications & Key Features

Network Capacity:	Up to 250 WirelessHART devices.
Host Interfaces:	- RS-485 (2-wire) — supports Modbus RTU, HART - Ethernet — supports Modbus TCP, Ethernet-based host protocols.
Power Options:	24 VDC or 110 VAC (depending on model variation).
Ordering Options:	Integrated antenna; output combinations (Ethernet, RS-485, or both).
Configuration Tools:	Web interface, PACTware DTM or DD, register map tools.
Security:	Wireless message encryption; host authentication; register visibility per device; unreadable by external listeners.

Model Number Selection

The model number will consist of a base number MCG 5200 followed by 3 digits. These digits will represent 3 sets of options:

A • ANTENNA	
00	Integrated Antenna
B • POWER SOURCE	
00	24 VDC
01	110 VAC
C • OUTPUT	
01	Modbus over RS-485 (2-Wire)
02	Dual Output (Modbus over Ethernet/Modbus over RS-485 (2-Wire))
03	Modbus over Ethernet

Summary

Backed by decades of innovation in measurement and automation, the MCG 5200 WirelessHART Gateway delivers a secure, scalable, and future-forward solution for integrating wireless field data into control systems. By choosing the 5200, operators get not only real-time insight and improved system visibility but also stronger security, simplified configuration, and protection of both product and reputation.

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