

Wireless Gateway

WC45i

FREEWAVE



WC45i-GW



WC45i-GW-DIN

KEY FEATURES

- Stores all inbound sensor data in Modbus format
- Manages outbound communications
- Modbus interface (RS485 RTU or Modbus TCP with optional Ethernet Gateway Interface Module)
- Times out readings from off-line sensors
- Supports wireless configuration of remote endpoints and HART devices via PACTware or Radar Master
- Low power consumption
- Integrated high-gain omnidirectional antenna and gateway electronics
- Automatically configures as star or mesh network
- Compact and simple to install and maintain
- Rugged design for demanding outdoor environments
- Range: 3+ miles

3/4" NPT conduit interface

OVERVIEW

Rugged, Simple, Flexible, Value

FreeWave's new WC45i Wireless Gateway provides a wireless management system for WAVECONTACT I/O products with an integrated antenna. It stores all sensor data in Modbus format and manages outbound communications. The WAVECONTACT system is easily and quickly installed and deployed at a low-CAPEX or OPEX price point.

Together with all the WAVECONTACT endpoints, the WAVECONTACT system is quickly deployed to implement industrial automation where wired installations would be cost prohibitive. The WC 45i Gateway is rated for deployment in Class 1 Div 2 locations.

Gateways

WC45i-GW: Gateway with 25 foot cable and WC45i-BB

WC45i-GW-DIN: DIN-mounted Gateway

Interface Modules

WC45i-AN: Analog / Relay Output Module maps any type of sensor reading to an analog or relay output, ideal for retrofit applications.

WC45i-P: Ethernet Interface Module provides Modbus-TCP connection and diagnostic interface for remote configuration.

WC45i-BB: Smart Breakout Board with Signal and Status LEDs, DIN rail mount

TECHNICAL SPECIFICATIONS

TRANSMITTER

Frequency	902-928 MHz license-free ISM band compliant with FCC Part 15
Range	3 miles or more, depending on placement
Networks	Up to 65,520 networks
Over the Air Rate	10kbps

RECEIVER

Sensitivity	-105dB
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INTERFACES

Data Interface	RS-485 Modbus RTU, or Modbus-TCP, RS 232 for configuration. All readings are converted to Modbus registers and stored in the gateway.
Internal Diagnostics	Line voltage, signal strength, error conditions, internal event logging

POWER REQUIREMENTS

Power	6-36 VDC
Radio Power	500 mW
Current Draw	25mA Avg at 12 VDC

GENERAL INFORMATION

Operating Temp	-40°C to 85°C
Humidity	0% - 100% condensing
Antenna Type	Omnidirectional
Antenna Gain	5dB
Weight	Gateway: 2.4 lbs Gateway with DIN: 2.8 lbs
Enclosure	Weather-tight, integrated electronics and antenna, NEMA 3R (GW Stick)
Safety Rating	Nonincendive, Class 1 Division 2 Groups C and D, T5

INFORMATION TO ORDER

Model Number	Interface	IO	Includes
WC45i GW-485	RS-485 (Standard)	Modbus RTU	WC45i-GW, WC45i-BB
WC45i GW-P	Modbus-TCP (Standard)	Modbus TCP	WC45i-GW, WC45i-P
WC45i-GW-AN	RS-485 (Standard)	8 Analog (4-20 mA/1-5V) 2 Relays	WC45iGW, WC45i-AN
WC45i-GW-485-DIN	RS-485 (DIN Mount Gateway)	Modbus RTU plus 2 Data Outputs	WC45i-GW-DIN
WC45i-GW-P-DIN	Modbus-TCP (DIN Mount Gateway)	Modbus TCP plus 2 Data Outputs	WC45i-GW-DIN, WC45i-P

Accessories

- WC-USB-DB9:** USB to Serial Interface Cable DB9
WC45-Whip: Whip Antenna for use in fiberglass or plastic enclosure with direct mount to a DIN mounted card.
WC45PM: Panel Mount Antenna to mount outside an enclosure.

Related Products

WC20i Modular Endpoint, WC30i-PSI Wireless Pressure Sensor, WC40i Modbus System, WC25i Wireless IO Module and WC15i Multi-IO C1D1 Endpoint

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