



BASE UNIT - WIRELESS GATEWAY WM2000-002



PRODUCT HIGHLIGHTS

- Industrial Wireless Gateway with I/O Interfaces and I/O Expansion Capabilities
- Compact, Low-Profile Design with Low Power Consumption
- Serial Interfaces:
 - RS232 or RS485 (Software Selectable, Modbus Master/Slave Function)
 - RS485 Expansion (Modbus Master/Slave Function)
 - RS232 Configuration
- I/O Interfaces:
 - 4 Analog Inputs (0-5 V)
 - 2 Discrete Inputs + 2 Discrete Outputs
- Peer-to-Peer Communication / Up to 60km Wireless Range
- I/O Mirroring; Full Repeater Capabilities
- License-Free 900 MHz Band, Secure Data Transmission (2.4 GHz Optional)
- Easy-to-Install, Configure and Use
- Scalable Solution
- Wirelessly Connects to Class I; Division 1 Transmitters
- Optional I/O Expansion Modules Available
- User-Friendly BreeZ® Configuration Software

Wireless Gateway with I/O Interfaces	902-928 MHz ISM Licence-Free Band	Peer-to-Peer Communication
Easy-to-Configure BreeZ® Software	RS232/RS485 Serial Interface	Modbus Master/ Slave Functions
4 AI, 2 DI, 2 DO	Optional Modbus Expansion Modules	Class I; Division 2

WIRELESS SENSOR NETWORK

- Reliable, Robust Wireless Performance
- Eliminates Costly Conduits and Wiring
- Monitor / Control Process Conditions 24/7
- License-Free ISM Band, FSK & FHSS Technologies
- Reduces Labour, Installation and Maintenance Costs
- Helps Meet Regulatory Requirements
- Industrial Strength Performance & Durability

APPLICATIONS

- Oil & Gas, Pipeline, Petro-Chem, Water/Wastewater, Utilities, Irrigation Systems, Mining, SCADA Systems, PLC/RTU Extensions, Pump Control, Tank Level, 3A Sanitary, Pharmaceuticals, Biotechnology, and Much More



INDUSTRIAL WIRELESS AUTOMATION

TECHNICAL SPECIFICATIONS

HARDWARE FEATURES

Device Functionality	Wireless Gateway with I/O Interface and Expansion Capabilities
Embedded Controller	32-bit Low Power ARM7 Microcontroller with Internal FLASH (Field Upgradeable)
Serial Interfaces	RTU Port (RS232/RS485 Modbus Master or Slave) Terminal Block RS485 Expansion Port - Modbus Master or Slave (RJ-45)
I/O Interfaces	4x Analog Inputs (0-5 V) with 12-bit ADC 2x Discrete Inputs (0-24 VDC) for Dry Contact Relay or Open-Drain Output Devices 2x Open-Drain Outputs (Imax = 240 mA (Continuous Sink Current @ 80 °C), Vmax = 24 VDC) Devices for Controlling External Devices (Valves, Relays, Etc.)
Configuration	Config / Debug Port - RS232 Slave Only (RJ-45)
Self-Diagnostics	Contains Comprehensive Self-Checking Software and Hardware for Continuous Monitoring of Operation

WIRELESS COMMUNICATIONS

Type: 900MHz	ISM Band, FSK (Frequency-Shift Keying), FHSS (Frequency Hopping Spread Spectrum)
Frequency	902 MHz to 928 MHz
Data Rate	9600 bps / 115.2 kbps
Output Power	1mW to 1W
Receiving Sensitivity	-110 dBm @ 9600 bps or -100 dBm @ 115.2 kbps
Range	Up to 64km with Clear Line of Sight
Type: 2.4 GHz	Optional Version Available, ISM, DSSS
Antenna Connector	MMCX

CERTIFICATIONS

FCC		FCC Part 15
Industry Canada (IC)		ICES-003
SAFETY		Class I; Division 2

MECHANICAL SPECIFICATIONS

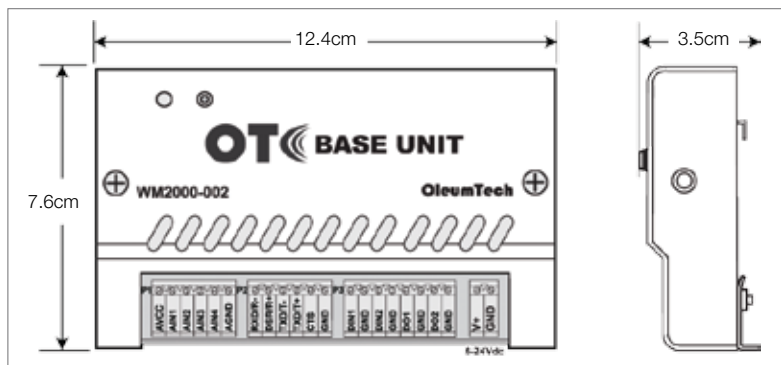
Dimensions	124.5mm(W)x76.2mm(H)x35.6mm(D)
Package Dimensions	203mm(W)x152mm(H)x63mm(D)
Weight	Net: 0.3 kg; Packaging: 0.4 kg
Mounting Hardware	DIN Rail or Direct Mount

ELECTRICAL SPECIFICATIONS

Operating Conditions	Temperature: -40 °C to 85 °C Class I; Div 2 Up to 80 °C Humidity: 0 to 99 %, Non-Condensing
Warranty	2-Year Parts and Labour

ORDERING INFORMATION

Model Number(s)	900 MHz: WM2000-002
Wirelessly Connects To	Base Unit, DH2, Wireless I/O Modules or Class I; Div 1 Transmitters



NETWORKING DIAGRAM



Automation Group

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