

Sub-1GHz band Wireless

# Wireless I/O series

for USA or EU

# Possible to input voltage signals or input and output digital signals from about 1km aparted terminals wirelessly

- Highly reliable mesh communication
- Supports Sub-1GHz band wireless with excellent transmission distance
- Driver library for Windows (available) and Linux (available soon)



GW1-ETH-WQ-US
Gateway terminal
(master)
for computer



AI-1004LY-WQ-US
Analog input terminal
(slave)
10-bit, 4ch, ±10V



DIO-0404LY-WQ-US
Digital I/O Terminal
(slave)
isolated input 4ch, output 4ch





## Application example of wireless I/O series

Implementation image at water treatment plant

#### Benefits of the system

- Oldeal for monitoring targets scattered in a wide area
  - Because the superior inlong distance wireless communication feature, it is suitable for installation on monitored objects scattered in a wide area.
- High reliable to prevent data loss

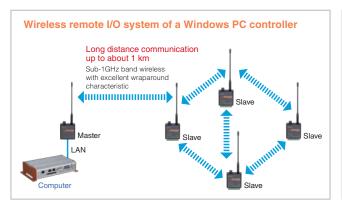
If a communication failure occurs between a certain slave terminal and the master gateway, the system mesh communication function will make this slave terminal communicate with the master gateway via another slave terminal.

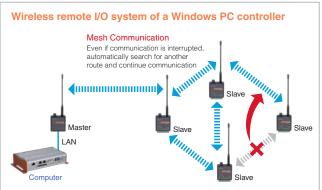
Easy to mount

By using the optional bracket, the robust and compact terminal can be mounted on a DIN rail.



#### **Network Topology**





#### Applications and Solutions

- · Airport luggage conveyor control system
- · Distributed signal monitoring system in factory with wide site
- Temperature monitoring system for a wide warehouse where layouts of stored products are changed frequently
- Monitoring system which can use Sub-1GHz band wireless to ensure of the communication channels if there is too much WiFi (2.4 GHz) wireless signal sources
- · Tank level monitoring system

#### Product Line Up

Product name	Model	Region / Standard	Functions
Sub-1GHz band Wireless Ethernet Gateway	GW1-ETH-WQ-EU	EU/CE	Wireless I/O master terminal     Ethernet - Sub-1GHz wireless communication conversion
	GW1-ETH-WQ-US	USA / FCC	
Sub-1 GHz band Wireless Isolated Digital I/O Terminal	DIO-0404LY-WQ-EU	EU/CE	Wireless I/O slave terminal     Photocoupler isolated inputs: 4     Photocoupler isolated open-collector outputs: 4
	DIO-0404LY-WQ-US	USA / FCC	
Sub-1 GHz band Wireless 4-channel Analog Input Terminal	AI-1004LY-WQ-EU	EU/CE	Wireless I/O slave terminal     10-bit, 4-channel, ±10 V analog input
	AI-1004LY-WQ-US	USA / FCC	
Mounting Bracket	BRK-WQ-Y	-	Bracket for DIN rail mounting
AC Adapter	POA201-10-2	CE, FCC, UL/c-UL, PSE	• Input: 90 to 264 VAC, output: + 12 VDC 1 A

- \* The photographs used in this paper are GW1-ETH-WQ-US, AI-1004LY-WQ-US, or DIO-0404LY-WQ-US respectively.
- \* There are also Sub-1GHz band wireless products for Japan market

#### Main features of the wireless I/O series

- Highly reliable Mesh communication, AES-encrypted data communication
- · Supports ambient temperatures from -20°C to +60°C
- ${}^{\textstyle \star}$  Compact design (62.0(W) x 64.0(D) x 24.0(H)mm, No projection and antenna included)
- Can be installed on a DIN rail with the optional DIN rail mounting
- Driver available for Windows (free download from CONTEC website) and Linux (available soon)
- · A gateway (master) can connect with up to 128 I/O terminals (slave)

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