

Sub-1GHz Specified Low-Power Wireless Communication

# Wireless I/O series

**Control signal input/output and capture analog signals from 1 km (0.62mile) away!**



PC connection gateway (Master unit)  
*GW1-ETH-WQ*



Analog input (Slave unit) 10-bit, 4-channel,  $\pm 10$  V  
*AI-1004LY-WQ*

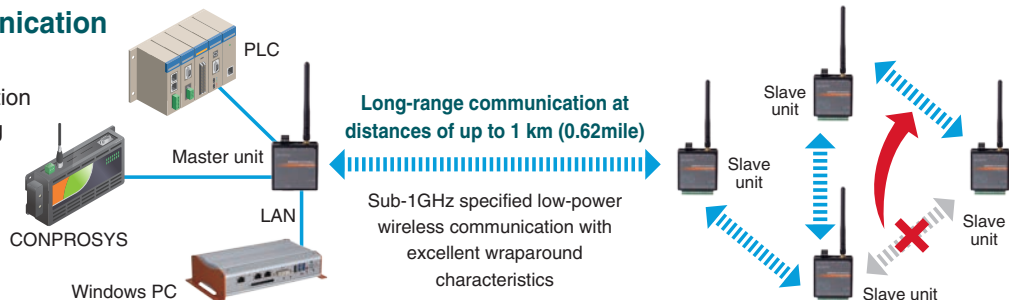


Isolated digital I/O (Slave unit) 4-channel input + 4-channel output  
*DIO-0404LY-WQ*

- Highly reliable multi-hop communication
- Supports Sub-1GHz band wireless communication with an excellent transmission distance
- API-TOOL for Windows driver library
- AES-encrypted data communication
- Supports PC-less Peer-to-Peer (P2P) mode wireless signal extension

## Multi-hop communication

The system ensures continuous communication by automatically looking for alternate routes if communication between units is interrupted.



## Example introduction at a water treatment plant

### System advantages

- **Ideal for monitoring over a large area**  
With advanced long-range wireless communication capabilities, the system is ideal for covering large area.
- **Highly reliable for preventing data loss**  
With multi-hop communication, even if communication between a specific slave unit and the master unit fails, communication is still possible through the other slave units.
- **Installable in almost any location**  
The robust, compact design allows for flexible installation on a DIN rail or using the optional antenna extension cable.

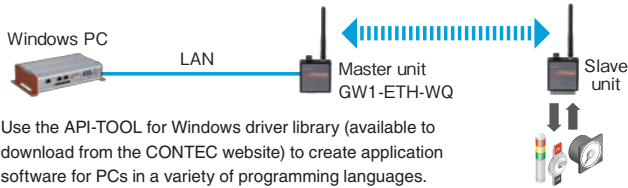
[Other examples]

Airport baggage conveyor control systems/Product temperature monitoring systems in large warehouses with frequent layout changes, environments with many Wi-Fi (2.4 GHz) signal sources/Monitoring systems with Sub-1GHz wireless communication channels/Tank level monitoring systems and so on.

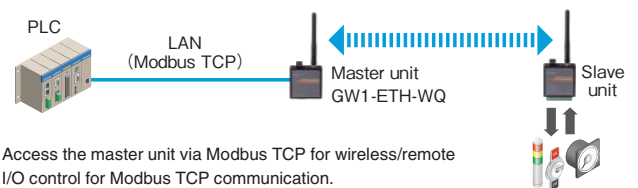


## Usage patterns

### Wireless/remote I/O for Windows PC



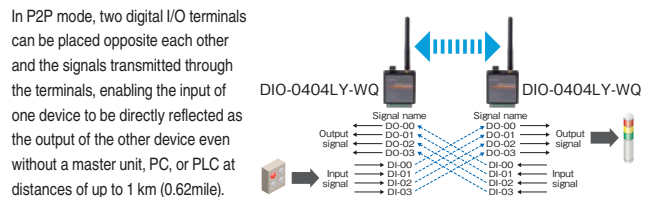
### Wireless/remote I/O for PLC



### Slave unit for CONPROSYS controller (\* Available in Japan only)



### Signal transmission in PC-less P2P (Peer-to-Peer) mode



## Models available for order

Product name	Model	Function
Sub-1GHz Wireless Ethernet Gateway	GW1-ETH-WQ	<ul style="list-style-type: none"> <li>•Wireless I/O master unit</li> <li>•Ethernet - Sub-1GHz wireless communication conversion</li> </ul>
Sub-1GHz Wireless Isolated Digital I/O Terminal	DIO-0404LY-WQ	<ul style="list-style-type: none"> <li>•Wireless I/O slave unit</li> <li>•Four photocoupler-isolated inputs (with support for current sink output)</li> <li>•Four photocoupler-isolated open-collector outputs (current sink type)</li> <li>•<b>P2P (Peer-to-Peer) mode support</b></li> </ul>
Sub-1GHz Wireless Analog Input Terminal	AI-1004LY-WQ	<ul style="list-style-type: none"> <li>•Wireless I/O slave unit</li> <li>•10-bit, 4-channel analog input, ±10V bipolar</li> </ul>

## Optional accessories

Product name	Model	Function
Mounting bracket	BRK-WQ-Y	DIN rail mounting bracket
External antenna	CPS-ANT-R3-01	Extension cable (3 m)
AC adapter	POA201-10-2	Input: 90 to 264 VAC, Output: +12 VDC, 1A (CE, FCC, UL, RoHS)

## Overseas wireless communication standard models

### For the USA

Sub-1GHz  
(902 to 928 MHz)  
support  
Safety standard  
: FCC, RoHS



### For the EU

Sub-1GHz  
(863 to 870 MHz)  
support  
Safety standard  
: CE, RoHS



### For China

Sub-1GHz  
(868 to 868.6 MHz)  
support  
RoHS



## Main features

- Usable in ambient temperatures of -20 to 60°C (-4 to 140°F)
- Compact design(W × D × H) :  
25.2 × 94.7 × 124.8 mm (0.99 × 3.73 × 4.91 inch)
- Windows driver provided (free download from the CONTEC website)
- Up to 128 I/O terminals (slave units) can be connected to one master unit (theoretical)\*  
\* The actual number of connectable units depends on the communication environment and data collection interval.
- Optional DIN rail mounting bracket



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