

Wireless Digital IO Mirror

Point to Point Wireless Lora communication

View Demo



INTRODUCTION

- **Break free from cable clutter!** Connect, control, and monitor up to 12 industrial devices simultaneously, all without a single cable.
- Wireless Digital IO Mirror connects to control signals and transmits the signal values by wireless communication; these signals are either re-created as similar signals or output as a data connection on Modbus.
- Wireless digital mirrors, along with an IoT gateway, can simplify both point-to-point and multi-point-to-point communications.

APPLICATIONS

- Factory Automation.
- Data acquisition devices.
- Process machines, PLCs, and HMIs.
- Remote Machine Management.
- Access Controls.
- Remote Interlocks.
- Lighting Controls.
- HVAC Automation.
- Conveyor Controls.
- Tank Level Monitoring.
- Smart Agriculture.
- Energy Management Systems.
- Environmental Monitoring.
- Traffic Management

FEATURES

- Industrial-Grade Wireless Transceivers.
- Easy Installation, Multi-function Display.
- Connect with PLC, SCADA, or any industrial interface.
- Operating Temperature Range: -10 to 65 °C.
- 1 km Range with On-Board Antenna.
- Connect to embedded systems and industrial computers.
- 865 MHz, licensed ISM bands.
- Isolated inputs and secure, encrypted communication.
- More than 250 devices can work simultaneously with zero crosstalk.

OUTCOMES

- **Enhanced Operational Efficiency:** Reduced downtime caused by cable damage by over 10% through wireless instrumentation. Solves the time-consuming and labor-intensive process of aligning field inputs with remote panels
- **Improved System Flexibility:** Allows quick reconfiguration from mobile without the need for rewiring.
- **Fault Tolerance and Reliability:** Ensures stable performance with isolated inputs and encrypted communication.
- **Cost-Effective Solution:** Reduces both installation time and ongoing maintenance by replacing cables with wireless communication.
- **Future-Proof Connectivity:** Built with support for Modbus and other industrial protocols for Industry 4.0 integration.

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SPECIFICATIONS

All specifications at ambient of 25 °C, unless specified otherwise.

Electrical

- Power Supply : 24V
- Max. Current : 1 Amps
- Protections : Reverse Voltage
Short Circuit Protection
Surge Protection

Mechanical

- Material : Polyamide(PA66)
- Dimensions : 23x100x115mm
- Mounting : DIN Rail Optional

Programmable Parameters

- Device Address: 0x01 to 0xFF

Wireless Parameters:

- Communication Protocol : Lora
- Communication Frequency : 868Mhz / 433Mhz
- Encryption Type : 128 bit AES
- Error Correction : FEC

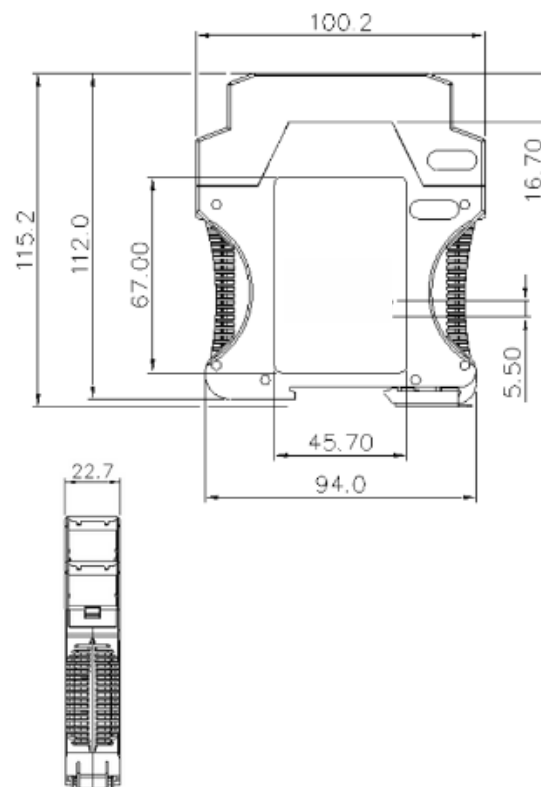
Environmental Conditions

- Operating ambient temperature -10 °C to 65 °C
- Relative Humidity 0 to 95%, non condensing

Integrations and Customizations

- Interface with Modbus RTU devices and LoRa devices.
- Interface with IoT gateways.
- Customizable with a special antenna for long range.
- Supports multipoint communication.

Drawing



ORDERING INFORMATION

Model Number Configuration for Wireless DIN&DOUT Pair

To facilitate ordering and customization of the Wireless DIN&DOUT Modem, we offer a personalized model number configuration that allows you to tailor the device to your specific needs. You can specify your requirements based on voltage, range, frequency, and antenna length, ensuring that your modem perfectly fits your application.

Model Number Configuration:

WLDIN&DOUT/[Voltage][Range][Frequency][Antenna]

Configuration Options:

1.Voltage:

- 24V : 24V DC input

2.Range:

- M: Medium range model
- L: Long range model

3.Frequency:

- 4: 433 MHz
- 8: 867 MHz

4.Antenna:

- N: Normal antenna
- E: Antenna with Extension cable

Example Model Numbers:

- **WLDIN&DOUT/12M8N:** Wireless WLDIN&DOUT Modem with 12VDC input, medium range, operating at 868 MHz, with a normal antenna.
- **WLDIN&DOUT/24L4E:** Wireless WLDIN&DOUT Modem with 24VDC input, long range, operating at 433 MHz, with an extended antenna.

List of Items

- 1.Wireless DIN and DOUT Modem.
- 2.Antenna as per model number.