

Instant Alerts at Your Threshold, Smart Multi-Scenario Protection

R900PD04DO1 + R603

Multi-functional Data Transmission & Smart Voice Alert Combo, Transform Legacy Meters and Sensors into Smart Monitoring Networks

Product Features

R900PD04DO1

The **R900PD04DO1** is a multi-functional LoRa device supporting **4 RS485 channels** and **1 Digital Output**.

It wirelessly sends RS485 data to the LoRaWAN platform and passes downlink commands back to devices. In **Modbus Master mode**, it polls up to **16 sensors**, processes data, and automatically controls the Digital Output.



- Supports **4 RS485 channels** in **Transparent Mode** and **Modbus Master Mode**
- **RS485 Optical Isolation**
- Protection Rating: **IP50**
- **Threshold-based Alarm**

R603

The **R603 Wireless Customized Voice Announcer** integrates **multicast** functionality, enabling a single alarm signal to be sent to multiple receiving devices at once, greatly improving response efficiency. It's ideal for multi-device linkage in industrial and smart city scenarios.

- **Multicast Powered Efficient Alerts**
- **Customizable Broadcast Voice**
- **Programmable RGB LED Color & Flash Modes**
- **Adjustable Volume and Mute Mode**
- **Backup Battery**



Key Features

Seamless Dual-Device Collaboration

The R603 handles real-time alarm broadcasting across multiple scenarios, while the R900PD04DO1 collects data from traditional devices and triggers linked actions—creating a complete “**collect** → **evaluate** → **alert**” workflow.

No complex setup required—install and operate immediately, delivering instant smart monitoring capabilities.



Multi-Channel RS485 with Broad Compatibility

R900PD04DO1 supports multiple devices at once, with stable and interference-free communication.

It works with electric, water, and gas meters, as well as industrial sensors like temperature, pressure, and liquid level meters. No changes to existing equipment are needed, keeping upgrade costs low and fitting existing layouts.



Automatic Threshold Alerts with Rapid Response

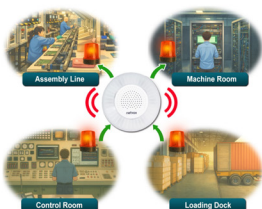
Set safety limits in advance. When R900PD04DO1 collects data (e.g., meter readings or sensor values) exceeding the limit, R603 triggers an instant alarm, helping prevent potential risks from escalating.



R603 Multicast Alarm with Full Coverage

The R603 delivers powerful sound and light alerts—≥80 dB at 3 m—paired with customizable RGB LEDs and multiple flashing modes.

With multicast support, it triggers synchronized alarms across multiple areas, ensuring no blind spots and making early warnings more visible and effective.



Application Scenarios

Power Monitoring

Background: Industrial and commercial power environments require real-time monitoring of current and voltage to prevent overload and equipment damage.

Devices: Electricity meters and current transformers connected via R900PD04DO1.

Trigger Condition: Current or voltage exceeds safe limits.

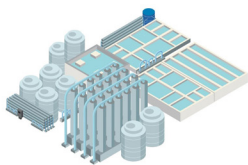
Alarm Action: R603 triggers audible and visual alarms and sends alert data to the backend system, ensuring safety and reducing downtime risk.



Water Treatment

Background: Water and wastewater treatment facilities require real-time monitoring of water levels and flow to prevent overflow or equipment overload.

Devices: Level sensors and flow meters connected via R900PD04DO1.



Trigger Condition: Water level or flow exceeds preset safety thresholds.

Alarm Action: R603 multicast alarm immediately triggers audible and visual alerts and notifies the control center.

Industrial Monitoring

Background: Factory workshops or production lines require monitoring of temperature, humidity, and pressure to ensure stable operation.

Devices: Temperature, humidity, and pressure sensors connected via R900PD04DO1.

Trigger Condition: Temperature, humidity, or pressure exceeds predefined thresholds.

Alarm Action: R603 multicast alarm notifies both on-site personnel and control center with audible, visual, and remote alerts.



Warehouse Management

Background: Warehouse environments require monitoring of stack height, temperature, humidity, and stock levels to ensure safety and quality.

Devices: Height sensors and temperature/humidity sensors connected via R900PD04DO1.



Trigger Condition: Stack height or temperature/humidity exceeds thresholds.

Alarm Action: R603 multicast alarm triggers audible and visual alerts and notifies the warehouse management system for automated actions.