

iWSN-200R

iWSN Data Concentrator with 1-port RS-485 and 1-Channel Relay Output (Asia Only)

Features

- 433 MHz Radio Frequency
- 16 RF Channels
- Supported Modbus RTU protocol (Slave)
- Supported data buffers of 31 iWSN sensors
- 1 Channel Relay Output (Only supports iSOS series)

Introduction

iWSN-200R is an iWSN wireless data concentrator, it supports one 433MHz wireless communication interface and one RS-485 communication interface. The module supports Modbus RTU protocol slave, the main function can receive and buffer wireless data from up to 31 iWSN sensors. The user can send Modbus RTU command to read the sensor's data by RS-485 interface. For wireless communication, the module supports up to 16 wireless channels and 8 groups ID which can be set by rotary switch and DIP switch which is convenient for users to divide and manage the wireless network of 433MHz frequency. It can also automatically control relay output to react to emergency distress packages sent by iSOS series, so that the adjustment and maintenance of the modules can be easier.

In addition, iWSN Utility is a special software tool developed to simplify the configuration process and the setup of the iWSN network. It greatly reduces the burden of deploying the iWSN network and let users focus on big data processing and analysis. Through the intuitive visual operation interface of iWSN Utility, users can easily setup an iWSN data collection system on a local computer without knowing the Modbus address configuration of the iWSN data collector. The device tree diagram of the Utility allows users to clearly understand the network structure of the current iWSN network and is convenient to manage and check the configuration status of iWSN devices. In addition to showing the immediate value of iWSN sensing modules, the Utility also provides performance information and CSV/database storage functions, so that users can not only know the execution efficiency of each iWSN data collector, but also save time in building data storage systems.

Applications



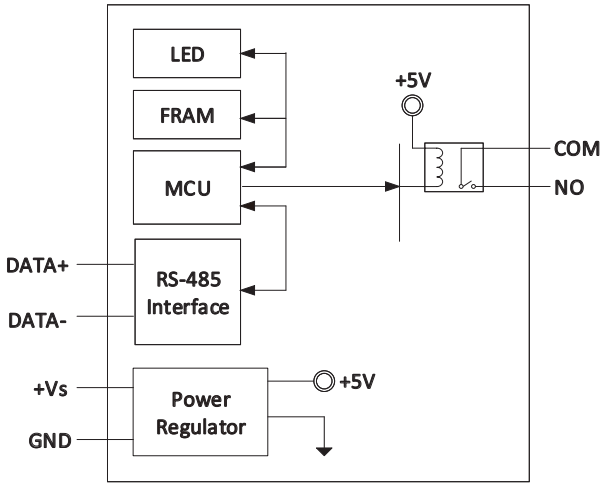
System Specifications

EMS Protection	
EFT (IEC 61000-4-4)	+/- 1kV
ESD (IEC 61000-4-2)	+/- 4kV Contact
Surge (IEC 61000-4-5)	+/- 1kV
LED Indicators	
Status	1 x Power 1 x RF_Tx 1 x RF_Rx
RF	
Channels	0 ~ 15 (configured by rotary switch)
Radio Frequency	433MHz
Transmission Power	9±1dBm (PA Off) / 18±1dBm (PA On)
Transmission Distance (LoS)	100m (Line of sign, LoS)
Antenna	
Connector	RP-SMA Male (Plug)
Dimensions (mm)	10 x 108 (Ø x L)
Type	0 dBi, Omni-Directional
Relay Output	
Channels	1 (Form A)
Type	Power Relay, (SPST N.O.)
Contact Rating	5A @ 250VAC 5A @ 30VDC

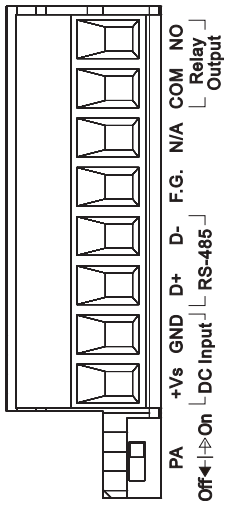
Operate Time	10ms (Max.)
Release Time	5ms (Max.)
Electrical Endurance	2 × 10^7 ops.
Mechanical Endurance	1 × 10^5 ops.
COM Ports	
Ports	1 x RS-485
Baud Rate	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200bps, N81
Protocol	Modbus RTU
Node Address	1 ~ 31
Power	
Consumption	1W Max.
Input Type	+10 ~ +30 VDC
Mechanical	
Dimensions (mm)	108 x 84 x 33 (W x L x H)
Installation	DIN-Rail
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

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Internal I/O Structure



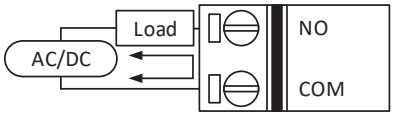
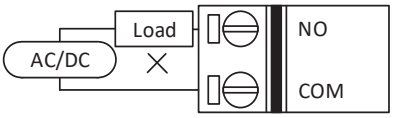
Pin Assignments



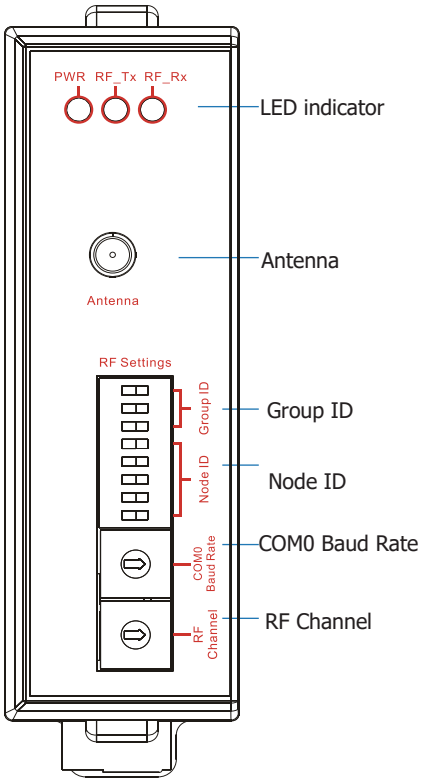
Pin	Name	Instructions
8	NO	Relay Output
7	COM	
6	N/A	Reserved
5	F.G	Shield ground
4	D-	RS-485
3	D+	
2	GND	+10V~+30VDC
1	+Vs	

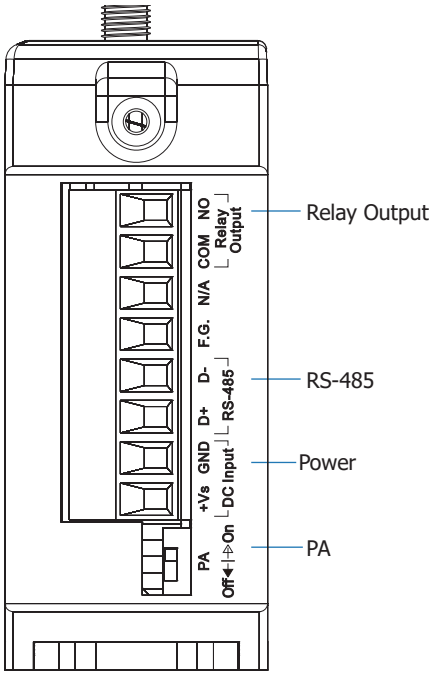
Item	Instructions	
PA	On	Maximum power of wireless output
	Off	Normal power of wireless output

Wire Connections

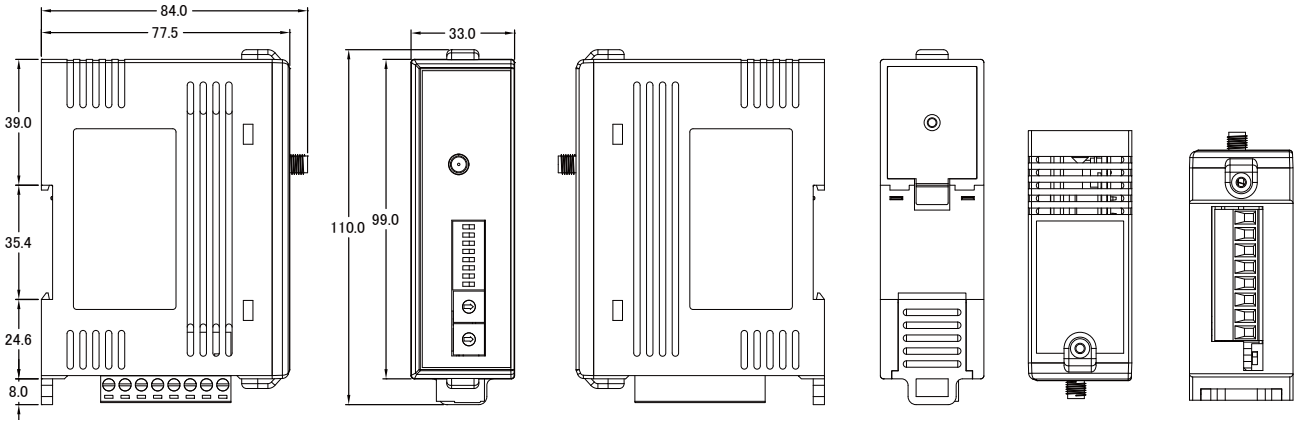
Output Type	ON State Readback as 1	OFF State Readback as 0
Relay Output		

Appearance





Dimensions (Units: mm)



Left Side View | Front View | Right Side View | Rear View | Top View | Bottom View

Ordering Information

iWSN-200R CR	iWSN Data Concentrator with 1-port RS-485 and 1-Channel Relay Output (RoHS) (Asia Only)

Accessories

Extension Cable 	ANT-Base-02, Antenna Base/1500 mm
	3S001-1, RG58A/U 1 Meter Long RP-SMA (male) to RP-SMA (female)

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