

NT-5112 RTU

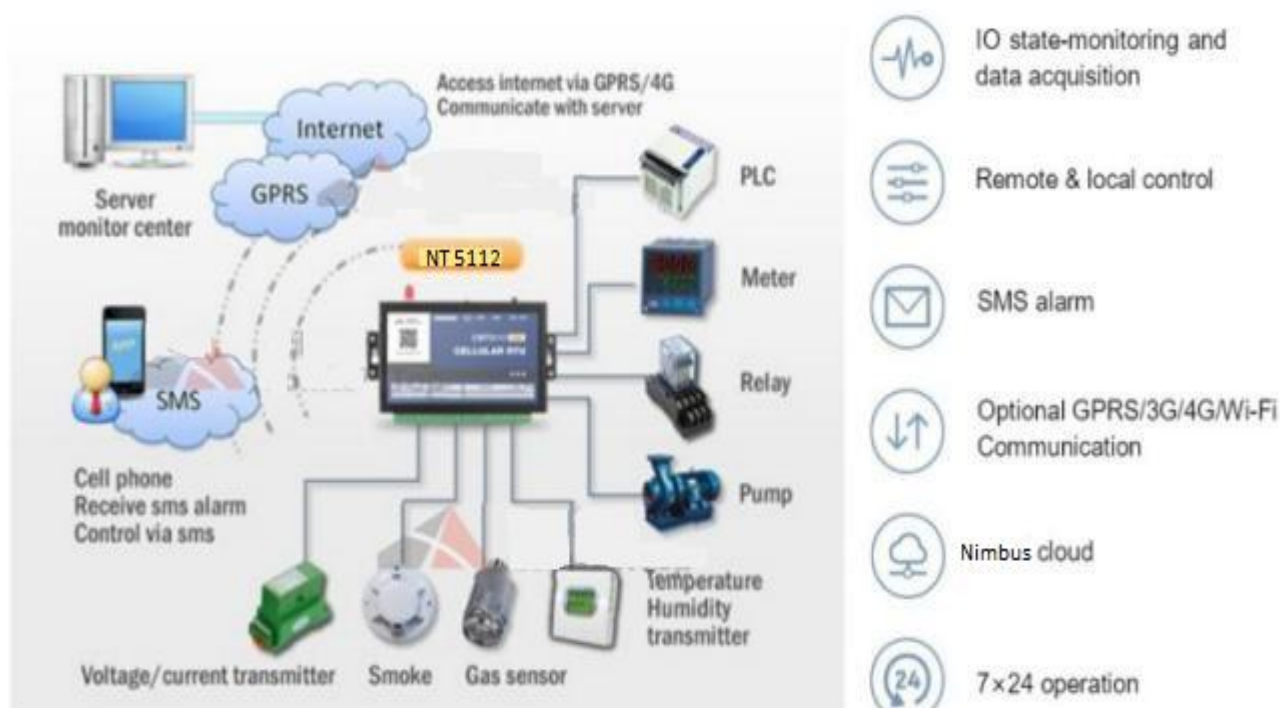
GSM/3G/4G/Wi-Fi optional

Data acquisition, transmission, control all in one



Product Summary

NT 5112 RTU with 12 DI, 4 DO, 4 AI, RS232 standard electrical interface can connect various industrial equipment, such as PLC, meters, sensors, electrical switches. It monitors the industrial system real-time running status and data, as well as constructs the remote device to a proprietary central computer and mobile phones through the GSM/GPRS/3G/4G/Wi-Fi communication network. It efficiently acquires the remote equipment operating parameters and process management, can be widely used in industrial automatic control, base station / computer room monitoring, environmental monitoring, water conservancy project, power industries, agriculture, etc.



System Features

- Adopted highly integrated industrial 32-bit ARM MCU
- Reliable performance with built-in double watchdog, 24×7 operation
- With signal filtering mechanisms
- Network-reconnect and retransmission to ensure data accurately transmit
- Update RTC automatically or manually, clock source support Sms, NTP, CwtIO Server
- Can set multiple timers(second, minute, day, week, month) to execute actions, e.g. output, upload data, change setting
- Event-based linkage programming, e.g. alarm linkage output
- Provide configure software, visual programming, over 100 parameters can be set
- Inside temperature optional, can set high or low to alarm
- Optional inside battery that life is 8-20 hours, cellular module Intelligent sleep when power lost

Port Features

Port	Qty	Features
DI (digital input)	12	<ul style="list-style-type: none"> • Accept dry contact
DO (digital output)	4	<ul style="list-style-type: none"> • Transistor output (drive voltage=power supply voltage, Drive current≤500mA) • Remote or local event activate DO on/off/pulse • Remember status when power lost
AI (analog input)	4	<ul style="list-style-type: none"> • Accept 4-20mA (option: 0-5V), Sampling frequency: 33Hz, 16-bit precision) • Convert signal to actual measure value, support adjustment • Configurable parameters for signal acquisition, alarm, data communication • Detect connect or disconnect to alarm
RS232	1	<ul style="list-style-type: none"> • Configuration port

Communication features



Wireless network communication

- Option network: GPRS, 3G, 4G, Wi-Fi
- TCP/IP connect at most 4 servers (support Static IP address or domain)
- Events (e.g. alarm, timer) trigger upload data
- Communication protocol: Modbus TCP, http post, Cwt_IO (two-way communication)
- Support two-way data transparent transmission with RS232



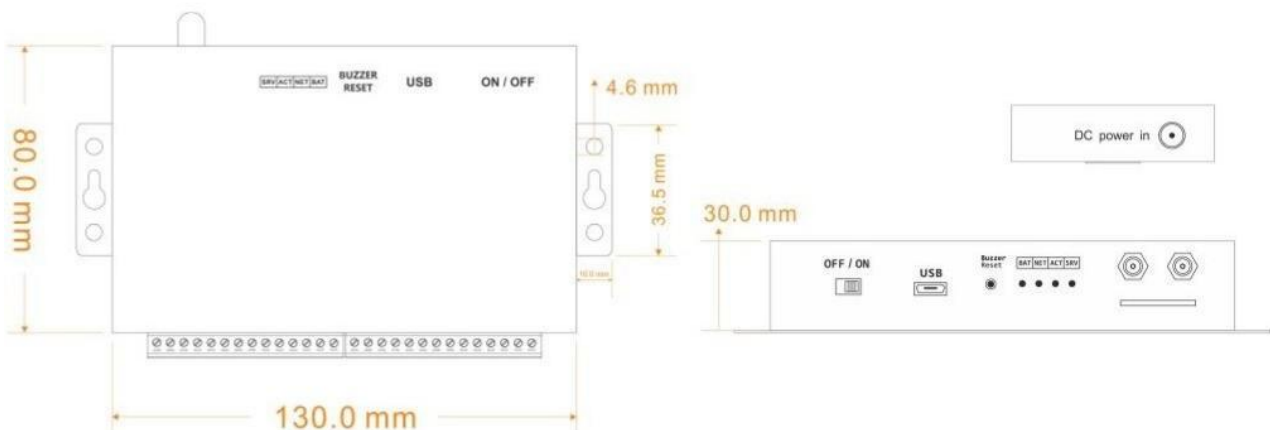
SMS Communication (available for cellular version)

- Preset 10 phone numbers (support distribute authority to receive sms)
- Sms alarm when any IO channel triggered or out of preset normal range
- Editable alarm and recover sms with time stamp
- Query any IO channel's status or value via sms command
- Control output via sms command
- Sms report any IO channel's status or value on schedule
- Remote setting via sms commands
- Can query SIM card balance, sms forward
- support power lost sms alarm and recover sms (works by inside battery)

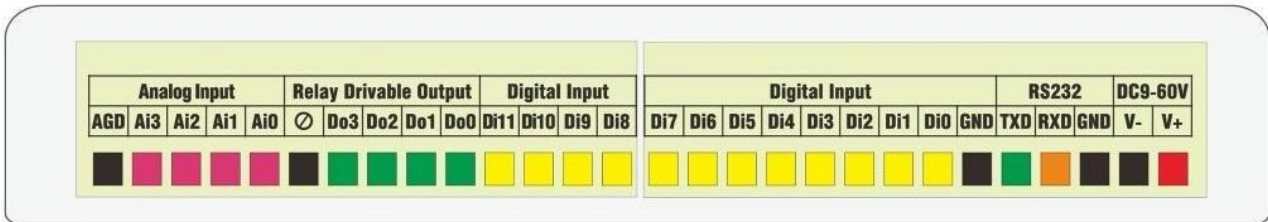
Specifications

Core	MCU	Cortex M3 32-bit ARM
Power	Power supply	9-28V DC (Standard adapter: DC 12V/1.5A)
	Consumption	12V input Max. 150mA/Average 50mA
Network	Wireless Network	Either GPRS (or 3G/4G, need simcard) or Wi-Fi (Not need simcard) Default: GSM/GPRS (4 band 850/900/1800/1900Mhz) Option: WCDMA (3G), FDD LTE(4G) Option: Wi-Fi, 802.11 b/g security WEP/WPA/WPA2
IO channel	Digital input (DI)	12 channels, Dry contact trigger
	Digital output (DO)	4 channels, transistor output Output drive voltage=power supply DC voltage Drive current ≤500mA
	Analog Input (AI)	4 channels, receive 4-20mA (option: 0-5V), Sampling frequency: 33Hz, 16-bit precision, Dual digital filters for anti-noise
Series port	RS232	1 port, baud rate: 1200~115200dps, default 9600,n,8,1
	Mini USB	Configuration port
Other interface	SIM/UIM	Standard user card interface
	Antenna	Standard SMA female interface (50Ω)
Others	Battery	Optional lithium-polymer, 1000mAh/3.7V, life:8-20 hours
	GPS module	Optional
Working Environment	temperature	-30℃ ~ +70℃
	humidity	5 ~ 95% (non-condensing)
Physical	Terminals	2×14pin 3.81mm spacing, pluggable
	Housing	Providing IP30 protection
	Dimension	130×80×30mm
	Weight	370g

Size diagram



Terminals



Package list

RTU×1, antenna×1, Standard adapter: DC 12V/1.5A×1, serial cable×1, USB cable ×1

Configure Software

- No programming! set parameter by visual interface
- Can save config file, one click finish config
- Over 100 parameters can be set, flexible!
Meeting various industrial requirements

