

# Monitoring and remote control

## Ethernet – WIFI - GPRS

**NIDUS-mini** is an expansion platform for Rabbit MiniCore modules, series 6000.

Its main feature, consists in monitoring a wide variety of sensors and react to pre-defined criteria.

The **NIDUS-mini** platform, was developed with the objective of integrating functions normally available in various devices. The definition of criteria is user-friendly in that it is intuitive and of easy configuration.



### Characteristics - Hardware

#### Option 1 - "NIDUS-mini" with two Serial Ports

- 2X RS232 / RS485 Module
- Up to 12 external devices (Modbus/RTU)
- Up to 32 external sensors (Modbus/ASCII)

#### Option 2 - "NIDUS-mini" with RF 868Mhz module

- Up to 50 RF sensors "airO"

ALL

- RJ45 Ethernet port
- User-friendly firmware

**Environmental monitoring solution and remote control of In/Out.** The device can register data and send all type of alarms.

- Integration of SCADA and CLOUD systems. Various communication protocols available.
- SIMPLE WEB Interface and easy understanding.
- Integration of various external devices via different communication protocols Modbus/RTU, ex: Analyzer/energy counters, water, weather stations, etc. ...
- Stores up to 200'000 records. The records may be individually configured.
- Intelligent system of transfer of records

### Characteristics - Firmware

- Configuration via built-in WEB browser
- User authentication
- Direct and programmed reaction of events
- Remote control of digital outputs
- Communication Modbus/RTU w/ external devices
- Easy integration w/ external systems (XML)
- Thermostatic function
- Verification of state of devices in network (Watchdog)
- Graphic visual in real time
- Individual parameterization of In/Out state (Alarm e records)
- Internal memory of 200'000 records
- Protocols: TCP/IP, UDP/IP, SNMP, HTML, XML, PUSH/XML, Modbus (RTU and ASCII), SMS and E-mail

The screenshots show the NIDUS-IT web interface. The top screenshot displays a 'Summary' page with a table of sensors and a real-time graph for 'Temp Office'. The middle screenshot shows 'General Settings' for a 'Ventilador' output, including options for enabling, naming, and configuring alarms. The right screenshot shows 'User Settings' for multiple users, including name, SMS and email enabled status, and access rights. The bottom screenshot shows 'Analog/Digital Output Reactions' and 'SMS and Email Reactions' configuration tables.

### APPLICATION:

Where exists the need to monitor, register and control various types of sensors such as:

- Agriculture: Greenhouse management, irrigation systems, etc. ...
- Industry: Food, Pharmaceutical, Hospital, etc ..
- Buildings: Security management, HVAC, Energy management, etc ..