RelayGoose II

Climate Monitor / Relay Control

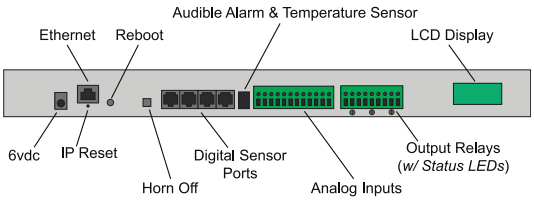
Rev 1.06

Datasheet

Web-based climate monitor with output relays, digital sensor support, and expanded analog input capabilities.

- Accessible through a web browser
- 3 output relays to control external devices
- Built-in temperature sensor
- 6 analog inputs for 0-5 VDC sensors
- 4 digital sensor ports for ITW remote sensors
- LCD display cycles through sensor readings
- Multi level alarms with escalation
- Alarm notifications sent by email and SNMP
- Audible horn triggered by alarm

RelayGoose II combines climate monitoring with remote relay control. The output relays can be triggered manually or tied to specific alarm settings. Includes a built-in temperature sensor and 6 analog inputs. Supports up to 16 remote digital sensors and a total cable length up to 600'. Configure alarms to get alerts by email or SNMP. Access to data logs and graphs through a simple web interface, provided by a browser (FireFox, IE).



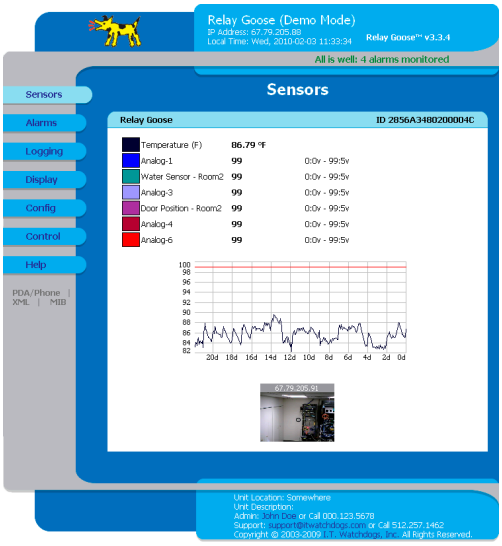
The RelayGoose II occupies a 1-U space, provides environment monitoring and contains output relays controlled either manually or triggered by alarm.

Output Relays

Output relays allow the RelayGoose II to control and signal external low-voltage devices. Applications would include:

- Trigger an autodialer to alert personnel by phone
- Send a signal to a building-security system
- Control a larger relay to power external equipment
- Trigger an A/C unit with dry-contact inputs
- Activate a remote warning light or buzzer

Web Interface - Sensors Page



View current sensor readings and graphs on the Sensors page. The names of the analog inputs are user-defined.

Web Interface

The web interface is the primary way to interact with the RelayGoose II. This allows a user to remotely check the status of the environment, view graphs and webcam images and update the firmware. Manual relay controls are also provided.

RelayGoose II is configured and administrated through the web interface. Access is user name and password protected. For added security, the device supports SSL encryption, provided by browsers using HTTPS.

Web Interface - Control Page

Relay	Relay Name	Energized	De-energized	Mode
Relay-1	Fan	On	Off	Latching
Relay-2	Relay-2	Energized	De-energized	Latching
Relay-3	Relay-3	Energized	De-energized	Latching

Use the Control page to customize relay names and relay states to fit your application.

Other Access Methods

Besides web access, there are several ways to obtain sensor data from the unit. Meta-tagged system info is available in XML. Logged data can be downloaded as a CSV file. The device also supports SNMP (v1, v2c, v3). This allows dozens of Network Monitoring programs such as HP OpenView, IP Sentry, MRTG, or What's Up Gold (Ipswitch) to easily add the RelayGoose II to the list of monitored devices.

There are several status indicators for local viewing. A back-lit LCD display cycles through real-time values, selected by the user. Bi-color LEDs under the relay terminals indicate relay state. Additional LED indicators show network activity and link status.

Alarms

If a sensor reading exceeds a user-defined threshold the RelayGoose II sends alerts by email or SNMP trap. A special feature of the RelayGoose II is to change relay status (turn on or off) according to alarm conditions. The following table summarizes alert options:

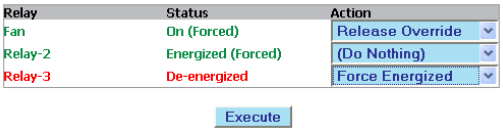
Event	Output Relays		Email	SNMP Trap	Buzzer
	"Latching"	Normal			
Alarm "tripped"	On	On	"trip" alert	"trip" trap	On
Alarm "cleared"	Stays On	Off	"clear" notice	"clear" trap	Off
"cleared" & "acknowledged"	Off	N/A	N/A	N/A	N/A

Alert actions for the RelayGoose II (including relay behavior)

Remote Sensors

Analog: Analog sensors include dry-contact and industry standard sensors providing a 0-5VDC signal. There are connections for 6 analog inputs.

Digital: Digital sensors provide sensor data through a serial protocol. Once connected, the RelayGoose II automatically detects and identifies the sensor type. With splitters, up to 16 digital sensors can be attached.



Check relay status and turn relays on or off through the Control page.

Web Interface - Alarms Page

In response to user-defined alarm states, the RelayGoose II can energize output relays, send alerts by email or SNMP and trigger the buzzer.

Device Details

Built-in Sensors
Temperature: -22 to 185 °F (-30 to 85 °C), +/- 0.5 °C

Output Relays
3 SPDT dry-contact relays
Max switching capacity: 60V, 30W
Connectors: 3 screw terminals per relay
3 Relay Status LEDs (bi-color, green="on", red="off")

Remote Sensor Support
Digital sensor: 4 ports (supports up to 16 with splitters)
Analog sensor: 6 inputs (contact closure, 0-5 VDC)

Specifications
Physical: 19" rack-mount, 1-U space
Power: 6VDC (supplied wall transformer)
Ethernet: 10 Mbps, RJ-45 receptacle
2 Network Status LEDs ("Link" and "Activity")
Real Time Clock (RTC) with power backup
Reset IP push-button: restores factory defaults
"Horn Off" push-button: silences alarm buzzer
"Reboot" push-button: reboots system
LCD Display: 2 lines x 8, back lit, cycling sensor values
Warranty: 1 year (extended warranties available)

Software Features
HTTP / HTTPS: web access
Control relays through web interface
Alarms: high/low values, multiple thresholds per sensor
Options to trigger relays or buzzer on alarm
ESMTP / POP3: email alerts, ESMTP / POP3 auth
SNMP (v1, v2c, v3): gets, trap and clear alerts, MIB
Paging: email to pager proxy
XML: meta-tagged sensor values, alarms, config, relays
Syslog: send debug messages to Syslog server