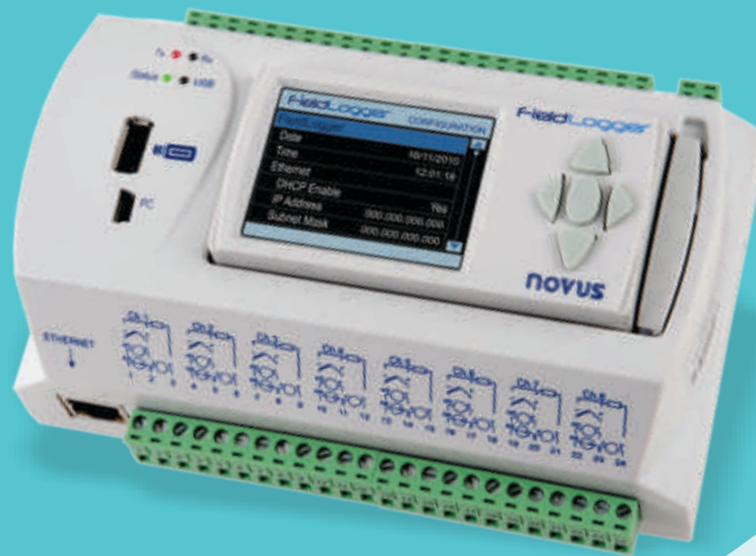


Complete Automation Solution

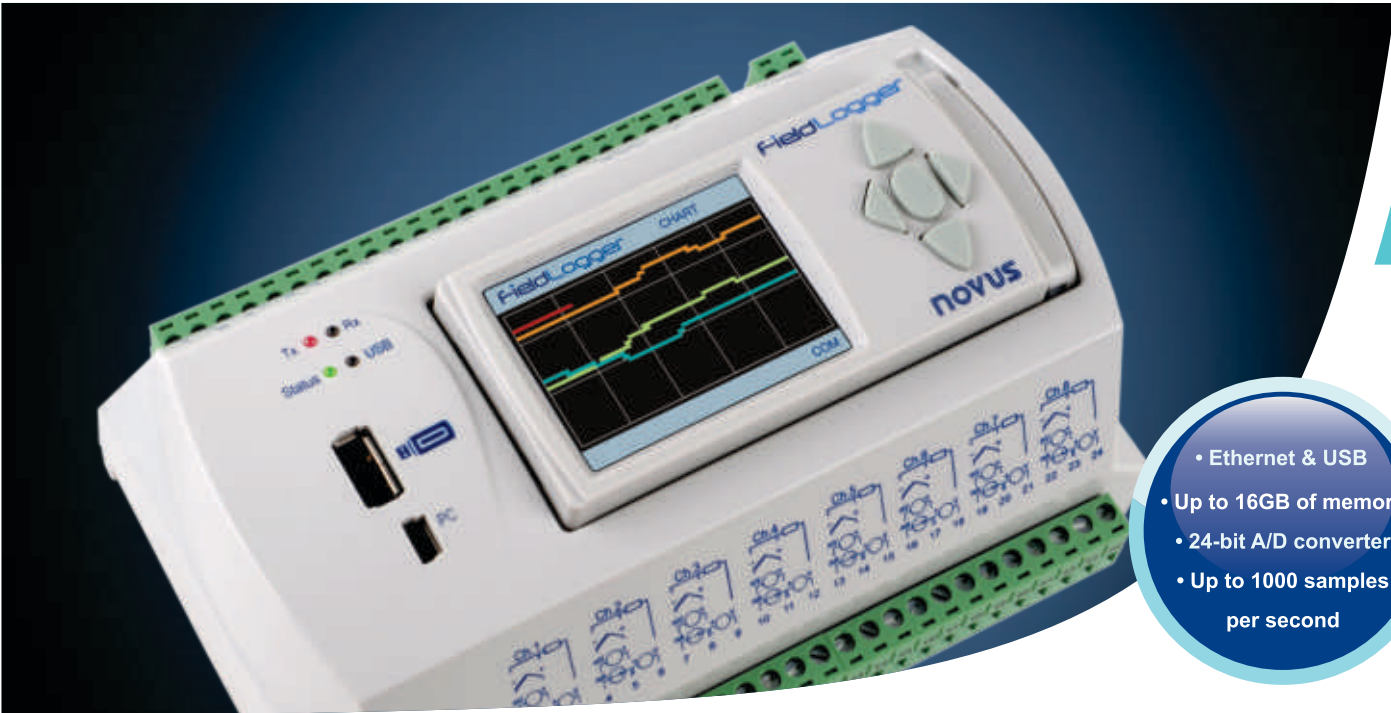


FieldLogger

Data Acquisition & SCADA

NOVUS

We Measure, We Control, We Record



- Ethernet & USB
- Up to 16GB of memory
- 24-bit A/D converter
- Up to 1000 samples per second

Introduction

FieldLogger

FieldLogger is a versatile, powerful and yet cost effective data logger. The **FieldLogger** handles analog and digital input signals. Powerful mathematical functions and high resolution and speed make it the ideal data logging solution. FieldLogger features high performance along with high connectivity and ease of configuration and operation.

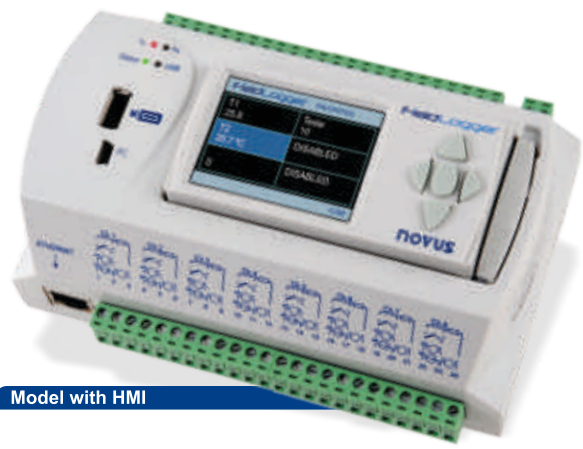
FieldLogger's local inputs include 8 software configurable analog inputs for thermocouples, Pt100, Pt1000, voltage and current signals. Two relay outputs and 8 digital ports are included. Digital ports are individually configurable as inputs or outputs. Up to 64 channels of remote inputs are available. Power supply availability of 90 to 240 V or 24 V.

Up to 128 mathematical channels can be used to perform operations on the measured values. Up to 32 alarm events can be detected, allowing output activations, e-mails and SNMP traps for e-mail notification. Networking greatly expands available alarm and calculation capability.

The RS485 interface can operate as a Modbus RTU master or slave. As a master, it can read and log up to 64 remote channels. It's 10/100 Mbps Ethernet interface allows access through a browser (HTTP), remote data download (FTP client and server), e-mails (sending SMTP, SNMP) and Modbus TCP.

FieldLogger has one USB interface to be connected to a computer (for configuration, monitoring and data download) and another USB port for plug-in flash drive for data retrieval. The 512k logging basic memory is used to store data and it can be greatly expanded to over 16 GB with an SD card.

An exclusive color HMI (human-machine interface) can be attached locally or remotely installed for indication or configuration. Our FREE user friendly configuration and monitoring software can be accessed by Ethernet, USB or RS485 and also provides on-line monitoring, data logging, plus downloading and exporting to spread sheets.



Resources for Measurements and Loggings

Input channels

- Available types:
 - Analog
 - Digital
 - Remote (registers read from external Modbus slaves)
 - Virtual (outcomes from mathematical operations on other channels)

* All channels can be logged and/or used for alarms.

Analog inputs

- 8 universal analog input channels:
 - Thermocouples (J, K, T, N, E, R, S and B), 0-5V, 0-10V, mV, mA, Pt100 and Pt1000
 - Reading rates of up to 1000/second
 - 24 bit A/D conversion resolution

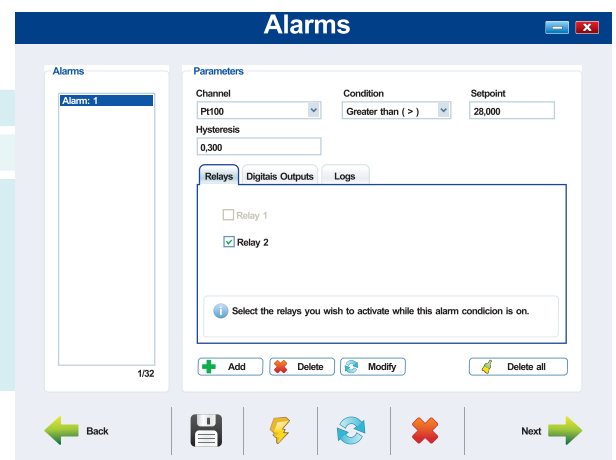


Mathematical operations

- Capable of up to 128 virtual channels
- Each virtual channel is a mathematical or logical operation on the input channels
- The outcome of a virtual channel can be used as an input for another channel, allowing the implementation of complex formulae

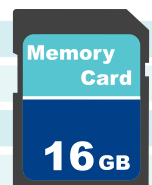
Alarms

- Up to 32 configurable alarms
- Any channel can be used in a comparison with a setpoint
- Alarm actions may include:
 - Relay activations
 - Digital outputs activations
 - E-mails sending for multiple targets
 - SNMP traps sending
 - Loggings start and stop



Loggings

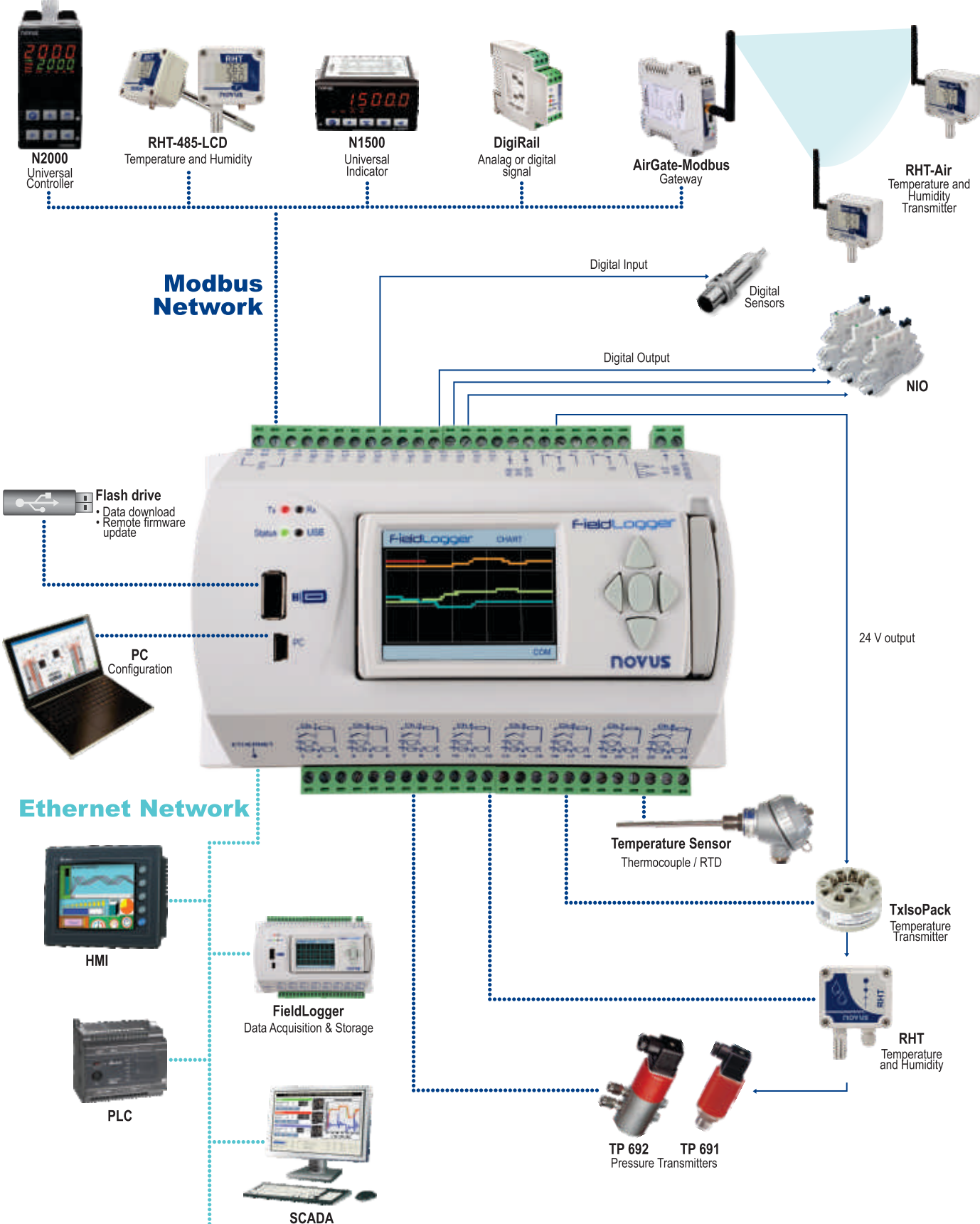
- Basic internal memory up to 512,000 loggings can be stored and up to 100 channels recorded
- When inserting a SD or SDHC card (optional), memory capability is expanded
- Data files are encrypted to meet FDA 21 CFR Part 11 and other Federal Agency requirements
- Logging rate can be as fast as 1000/second
- Data download can be done with the configuration software through a flash drive, USB device, RS485 or Ethernet interface
- Using the configurator, downloaded data can be viewed and exported for several formats: XLS, PDF, CSV, RTF, NOVUS SuperView and FieldChart



Remote Registers

- Operating as a Modbus master, allows reading and logging up to 64 remote channels (a remote channel is a register read from an external Modbus slave)

Resources for Modbus Network / Ethernet Network



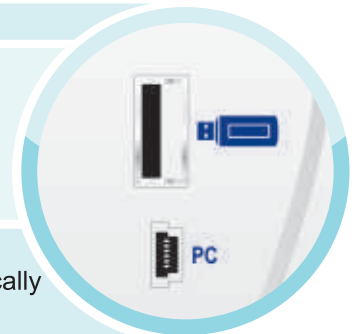
Multiple Interfaces RS485 / USB / Ethernet

RS485 Interfaces

- Modbus RTU protocol
- The main interface can act as a master or slave (communicating with SCADA systems)
 - Communication with multiple Modbus RTU slave devices
 - Allows acquisition of up to 64 external channels (remote channels)
- The secondary interface is always slave and allows HMI connection

USB Interface

- Has two USB interfaces
- USB Device: connecting with a computer
 - Configuration and logged data download
 - Uses a standard Mini-B USB cable (included)
 - Computer USB port is seen as a virtual serial (COM) port
 - Communication using Modbus RTU protocol
- USB Host: flash drive
 - When a flash drive is plugged in download of the logged data is started automatically
 - The period of time for the data transfer to the flash drive is adjustable



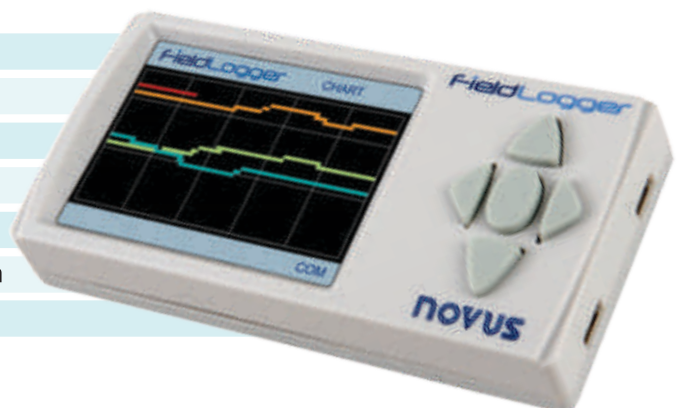
Interface Ethernet

- Ethernet 10/100 Mbps
- Services and protocols available:
 - DHCP: Search network parameters automatically
 - HTTP: Server of customizable pages with equipment information, alarms and channels readings
 - FTP (Client and Server): Download of the logged data (CSV format in Client mode)
 - SNMP: Allows monitoring via network management software
 - SMTP (Client): Sends e-mail messages on alarm conditions
 - Modbus TCP: Communication with SCADA systems
 - Can serve pages in XML format, which allows data to be worked externally (example: creation of customized web pages)
 - NOVUS Cloud Gateway connection
- Can act as a gateway between a Modbus TCP and a Modbus RTU networks

Introduction

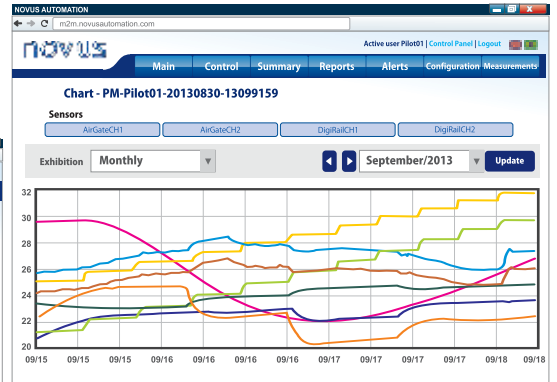
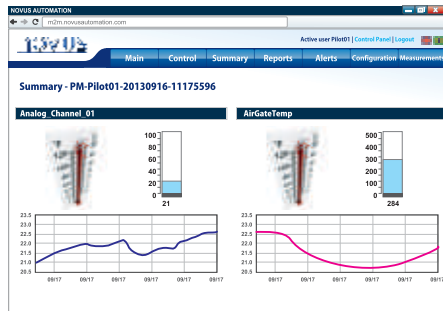
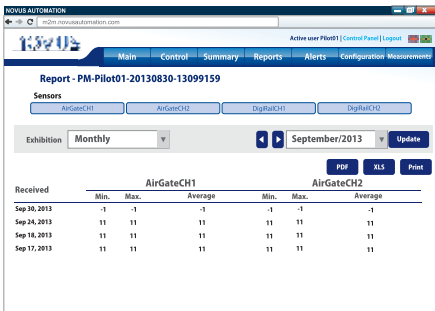
FieldLogger HMI

- Color QVGA screen 2.4"
- 96 x 48 mm format
- Shows the current channel values or a historical chart
- Indicates FieldLogger status and alarms information
- Allows parameter checking and configuration
- Local or remote installation with RS485 communication
- Optional: kit for HMI remote mounting



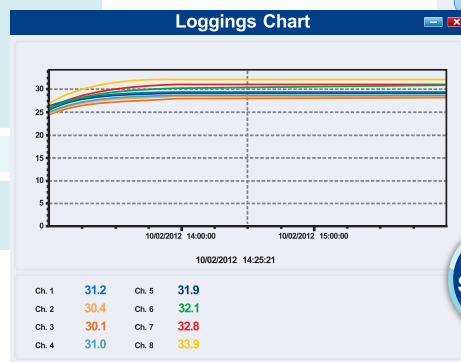
NOVUS Cloud Gateway

The FieldLogger is fully compatible with the **NOVUS Cloud Gateway** service. Binding the **FieldLogger** to the Cloud brings a new way to store, analyze and export historic data from remote or local processes. Acting as a simple Modbus packet router or as online data storage server, the **NOVUS Cloud Gateway** offers an intuitive web interface that allows users to view recent data, connection status, reports on logged data and also system exceptions of all remote telemetry points.



Configuration, Download and Diagnostics

- User friendly interface to:
 - Download, view and export data
 - Configuration and set-up
 - System diagnostics
- “Wizard” format (step-by-step guide)
- Can communicate through USB, RS485 or Ethernet



Check some other NOVUS products

- Process Controllers
- Electronic Thermostats
- Pressure Transmitters
- Conditioners & Isolators
- Temperature Transmitters
- Humidity Transmitters
- Data Loggers
- DAQ - Data Acquisition
- Softwares & RTUs
- Recording & Supervision
- Timers & Counters
- Calibrators & Handhelds

Headquarters and Factory

Porto Alegre /RS - Brazil - info@novusautomation.com - Tel: +55 51 3323.3600

Branch Offices Brazil

São Paulo / SP - sp@novus.com.br - Tel.: 11 3097.8466
 Campinas / SP - campinas@novus.com.br - Tel.: 19 3305.7999
 Curitiba / PR - pr@novus.com.br - Tel.: 41 3244.0514

Subsidiaries Abroad

Argentina - B.Aires - argentina@novusautomation.com - Tel.: +54 11 4554.6441
 Colombia - Bogota D.C - colombia@novusautomation.com - Tel.: +57 311 809.5532
 Miami / FL - USA - info@novusautomation.com - Tel.: +1 786 235.2674 Direct: 847 812.6450

www.novusautomation.com

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