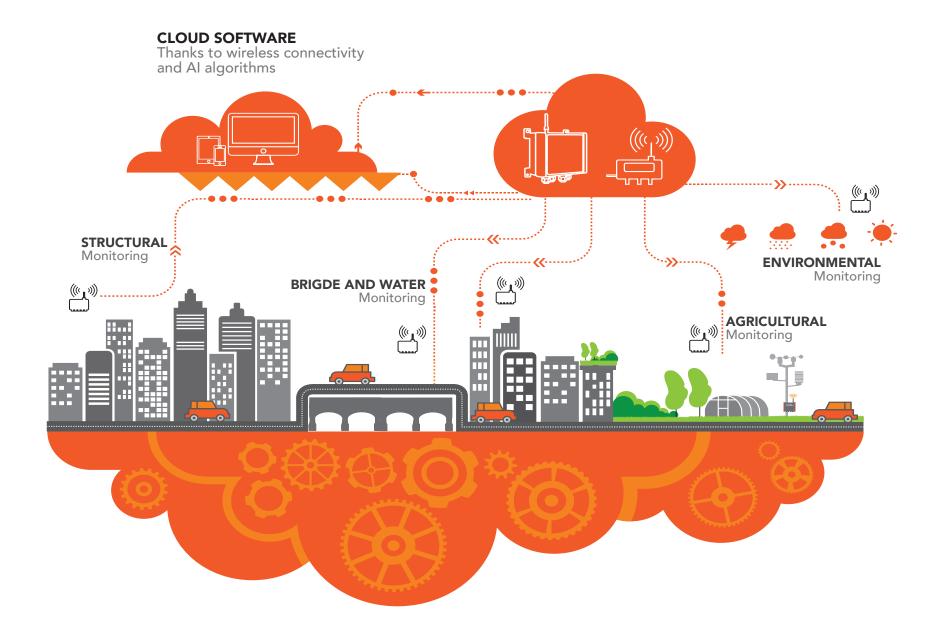




SMARTS CITIES MANAGEMENTOffering innovative products in respect of the earth







PAG5 COMPANY

PAG6 GATEWAY FAMILY

PAG8 APPLICATIONS

PAG10 PRODUCTS

PAG19 ARTIFICIAL INTELLIGENCE

COMPANY **



Next Industries - Milan - is born in 2014 dealing with motion detection and **IIoT** (Industrial IoT). Our self-designed products (data loggers, gateways and sensors) are provided with the Internet of Things technology and with **Artificial Intelligence** algorythms.

Next Industries' innovative products respect the Earth; wireless, low power and small size devices to be included in projects development and management of "resilient and inclusive smart cities".



BENEFITS Work with us if you need:

- to reduce maintenance and operations costs
- to reduce the risk of structural collapses
- to automatize data reading and collection
- to improve safety in workplaces, public places, structures

VISION 🔯



Become worldwide innovation leader in engineering solutions through a Design Thinking approach, supplying simple-to-use products for the Structural/Infrastructural, Energy, Environmental and Industrial markets

MISSION 🗘

Our Technologies help companies who need to detect motion in order to prevent damages, increase safety and improve UX/UI by using IoT sensors, Cloud Analytics and Artificial Intelligence.



What can we do with motion technology?

Motion technology know how allows Next Industries to supply in different applications like Infrastructural and Environmental monitoring, Energy and Waist management, Oil &Gas damages/leakages prevention.

DATA LOGGERS FAMILY



NI SYSTEM

NI data logger housed in enclosures is used in huge projects where a large number of analogue instruments have to be connected both to data logger location and/or to multiplexer external boxes. The case enclosure also allows wall mounting, and it is supplied with data logger module, rack and LAN cable for PC/Laptop connection.



DATA LOGGER WITH WEB SERVER ON BOARD

NI2400 data logger is available with 24 channels, expandable up to 384 with multiplexer. The data logger is provided with web server on board; no other software is needed. Also temperature and battery level sensors are on board, so no measuring channel is used for these purposes. User can set up the data logger and the sensors through the onboard webserver.



HIGH ACCURACY

NI2400 data logger has 0,01% accuracy and a temperature drift of <10ppm/°C. Inputs are differential and can be individually configured.



SENSOR SUPPLY

NI2400 data logger can be connected to different sensors; you can select by the software the power supply you need (24V, 20V, 10V, 5V DC).



WIRELESS CONTROL

NI2400 data logger can be integrated with GPRS/3G Modem to send data on FTP, mail or sms, saving in this way time and costs.



REMOTE CLOUD CONNECTION

Our devices are "web enabled" instruments and they can also be connected to remote (to cloud dashboard, with ftp connection or with mail/sms). Through the IIoT Technology, the user is able to build his remote dashboards, and to control the device any time and anywhere in a fast, efficient and professional way.



NI200/400 series is a compact low cost solution with weather proof enclosure – IP67. Thanks to this it fits perfectly in applications like environmental and building monitoring. Temperature, humidity and pressure sensors are on board and it can read also thermocouples. GPRS-4G***/3G/SigFox, Lo.Ra, NBIot*** and Wifi are optionals.



WEB SETUP DATA

Monitor your plant on web with your tablet or smartphone. Thanks to the webserver, it's easy and no other software is needed.



ALARM SETUP

Alarms setting up on the data logger is easy and immediate thanks to the web server on board. Alarms are sent via sms* and e-mail**.



^{**}Requires RS 232 modem or ethernet connection



REAL TIME CHART

Data acquisition trend is shown in charts and also stored up for further analysis. These charts give you a general visual idea of data trend.

^{***}Available from 2022

APPLICATION Building Monitoring



BUILDING Monitoring

It often happens in the field of building industry the need to monitor work-in-progress effects on the existing buildings near the construction areas - especially in urban areas. Excavations or soil handling can damage stability and structural integrity of the adjactent buildings. The system has to turn out to be efficient and reliable in order to allow works going on without any obstacle and security of other existing buildings and to guarantee citizenry.

INSTRUMENTS

The monitoring system should be able to monitor soil stability and landslides risk for the whole area. Remote access to measurement data and reliable alarm transmission via e-mail or SMS are a must.

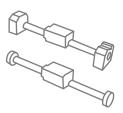
DATA LOGGER

FROM 4 TO 24
EXPANDABLE CHANNELS



VIBRATING WIRE

SENSOR USED TO MEASURE STRAIN GAUGES



REMOTE CONNECTION

DATA ACCESSIBLE FROM PC, SMARTPHONE AND TABLET

APPLICATION Biogas Application



BIOGAS Production Monitoring

It is possible to produce biogas by aerobic or anaerobic "digestion", starting from various biodegradable materials. The gas obtained in this way contains 60/70% of methane and can be used to fuel the boiler required by the digester but also for electric generator engines. Feed rate controlling would have improved the production process and this kind of measurment is also generally required for certification purposes.

INSTRUMENTS

In order to optimize gas production process, variations of the outside temperature – which could reduce production - should be kept under control.

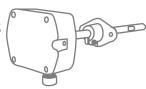
DATA LOGGER

FROM 4 TO 24
EXPANDABLE CHANNELS



CO2 SENSOR 4-20 mA or 0-10 V

TO MEASURE METHANE, CO2, H2S AND WET VAPOR



REMOTE CONNECTION

MORE PLANTS UNDER CONTROL FROM YOUR OWN DEVICE

PRODUCTS NI100

Up to
analog channels
for thermocouples

1 USB port, 1 Ethernet port

Up to

O-30 V channels

NI100

NI100 is a new data logger with 4 channels thermocouple input (NI101) or n° 2 thermocouples and n°4 0-30V channels (NI102) with USB memory stick, high/low/derivate alarms, 1 digital output, 2 digital inputs, RS485 and ethernet.



















M BENEFITS

- Compact low cost solution for environment and process applications
- Cloud software monitoring
- Software setup with Web Server On Board
- Internal memory and USB memory stick

FEATURES

- 4 thermocouple temperature inputs
- Temperature and pressure sensors on board
- 2 digital inputs with trigger and 1 digital output
- USB memory stick included
- Supports J, K, R, S, T, N, E, and B type thermocouples
- Ethernet

NI10	0			
	NI101	NI102		
Ethernet	Υ	Υ		
Relay Output (30V 1A)	1	1		
Digital Input (24V 10mA)	2	2		
Analog Input Number	4	6		
Internal Temperature Sensor	Υ	Υ		
Voltage	N	Υ		
Internal CJC Sensor	Υ	Υ		
Thermocouple	Υ	Υ		
Switchable Power Supply	N	Ν		
(Selectable by Software: 24V, 20V, 10V, 5V)				
RS485	2	2		
Power Supply RS485	Υ	Υ		
Smart MUX*	Υ	Υ		
RS232	Υ	Υ		
Display	128x64 px	128x64 px		
USB HOST	Υ	Υ		
Analog Expansion with Multiplexer	N	Ν		
DI/DO Expansion	N	Ν		
Memory	2GB	2GB		
Software Web Server	Υ	Υ		
Cloud Dashboard Management Option	Υ	Υ		
PHYSICAL CHAR	ACTERISTICS			
Weight	590g			
Dimensions (L x W x H)	231 x 138 x 75 m	231 x 138 x 75 mm		
Material	Plastic	Plastic		
Wiring		Screws clamp termination block up to 1,3mm2 (16AWG)		
Calibration	Recommended e	Recommended every 1 year		
Operating Voltage	10 to 30V DC (rev protected)	10 to 30V DC (reverse polarity protected)		
*C	1371 (347 / 313	TTTC)		

 $^{^*}$ Smart MUX: Allows to connect an NI100 to an NI10 and Multiplexers to read Vibrating Wire (with NTC) sensors. Up to 16 Multiplexers and 16 NI10, for a total of 384 sensors.

24
differential analog channels expandable up to 384

RS485 ports

1 to 6 relay outputs

NI2400 Multi channel datalogger

NI2400 is a multi channels data logger with 24 channels universal analog input, Ethernet, USB memory stick, high/low/derivate alarm, 2 digital inputs, 1 digital output and GPRS modem optional WiFI.



















M BENEFITS

- Increased number of sensors to which the datalogger can be connected
- Up to 384 sensors at a time connected through multiplexer boards
- Many types of sensors supported including thermistors, potentiometers, strain gauges, vibrating wires, thermocouples, reflectometers and soil moisture blocks
- Reduced sensor costs through suppression of the requirement for dc blocking capacitors for gypsum soil moisture blocks
- Power Considerations
- Decreased cost of cabling individual sensors
- Relay address to be used to directly go to a specific channel thus reducing power consumption and wear on the relay switches
- Equipment protected from electrical surges by including gas tubes on all of the inputs and having a ground lug
- Sensor-cable damage prevention by providing strain relief for sensor leads and independent routing for sensor shield lines

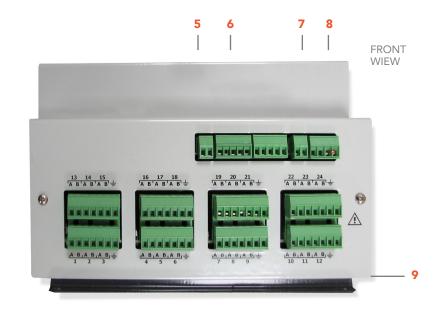
FEATURES

- 24 universal input channels
- Temperature, humidity, pressure sensors on board
- 1 digital output, 2 digital inputs
- USB memory stick connection
- Supports J, K, R, S, T, N, E, and B type thermocouples
- GPRS/3G/4G Optional
- Ethernet, RS485
- Vibrating Wire Interface
- Switchable sensor supply

PRODUCTS NI2400 • Multi channel datalogger







- 1 Keyboard
- **2** RS-232
- 3 LAN
- 4 USB
- **5** "V" OUT
- **6** RS-485
- **7** "V" IN
- 8 PWR input
- 9 Analogical inputs
- 10 Digital inputs
- 11 Digital Output

	PHYSICAL CHARACTERISTICS	
Weight / Material	980 grams / plastic and metal	
Dimensions (L \times W \times H)	231 x 138 x 117 mm	
Wiring	Removable connector	













	NI2400	
Ethernet	Υ	
Relay Output (30V 1A)	1	
Digital Input (24V 10mA)	2	
Analog Input Number	24	
Internal Temperature Sensor	Υ	
Voltage	Υ	
Current	Υ	
mV/V	Υ	
PT100	Υ	
NTC	Υ	
Vibrating Wire	Υ	
Internal CJC Sensor	Υ	
Thermocouple	Y	
Switchable Power Supply	Y	
(Selectable by Software: 24V, 20V, 10V, 5V)		
RS485	2	
Power Supply RS485	Υ	
Multiplexer*	Υ	
RS232	Υ	
Display	128x64 px	
USB HOST	Υ	
Analog Expansion with Multiplexer	Y	
DI/DO Expansion	-	
Memory	2GB	
Software Web Server	Υ	
Cloud Dashboard Management Option	Υ	
Weight	980g	
Dimensions (L x W x H)	231 x 138 x 117 mm	
Material	Plastic and Metal	
Wiring	Screws clamp termination block up to 1,3mm2 (16AWG)	
Calibration	Recommended every 1 year	
Operating Voltage	10 to 30V DC (reverse polarity protected)	

^{*}Multiplexer: Up to 16 Multiplexers for a total of 384 sensors.



differential analog channels

1 USB port, 1 RS 485

GB sd card

NI200/NI400

NI200/NI400 is ultra low power data logger with optional integrated radio designed specifically for remote and stand alone applications. NI200 is designed for hard environment field use with IP67 box, USB memory stick and electromechanical relays for each measuring channel.



- Long life battery
- Long range distance
- Global reach
- Low cost









available from 2022



1 USB host

4 Keys

7 V IN

(for usb flash drive) 2 Display 7 seg. **3** USB device

5 Analog channels

6 Digital Output













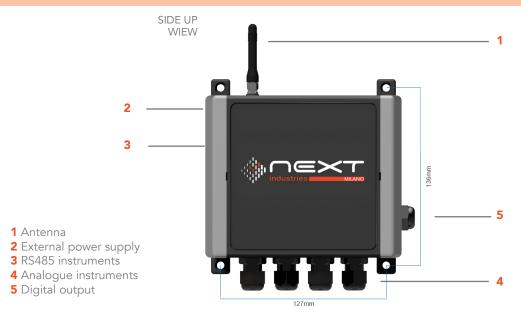
- Compact low cost solution with weather proof enclosures
- Cloud software monitoring
- Software setup with Web Server On Board
- Internal memory and USB memory stick
- Battery on Board

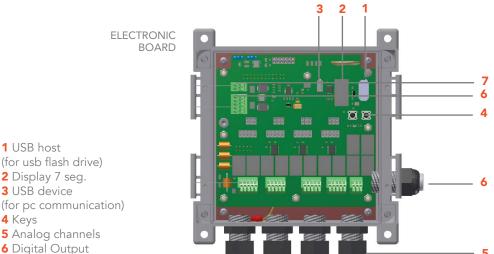
FEATURES

- 4 differential analog channels
- Measures: mV, mA, mV/V, NTC, Thermocouple Vibrating Wire (it depends on the model)
- 0,05% F.S. Accuracy
- different IoT protocols available
- Web Server on board
- Internet Of Things Technology
- Cloud Base Dashbord Management

PHYSICAL CHARACTERISTICS

Material / protection polycarbonate / IP67 Dimensions (L x W x H) 151 x 125 x 90 mm





PRODUCTS NI200/NI400

	NI200 - NI400			
	SigFox Full	Lo.Ra Full	3G/4G-WIFI Full	
	NI203	NI203	NI400	
2G/3G/4G* (*available from 2022)	N	N	Υ	
WiFi	N	N	Υ	
SigFox	Υ	N	N	
LoRa.	N	Υ	N	
Pulse Counter (2 inputs)	OPTION	OPTION	OPTION	
Relay Output (30v 1A)	Υ	Υ	Y	
Analog Input Number	4	4	4	
Voltage	Υ	Υ	Υ	
Current	Υ	Υ	Υ	
mV/V	Υ	Υ	Υ	
Vibrating Wire	Υ	Υ	Υ	
PT100	N	N	N	
NTC	Υ	Υ	Υ	
Internal CJC Sensor	Υ	Υ	Υ	
Thermocouple	Υ	Υ	Υ	
Switchable Power Supply	Υ	Υ	Υ	
(Selectable by Factory: 24V, 12V, 5V)				
RS485	Υ	Υ	Υ	
Power Supply RS485	Υ	Υ	Υ	
Display	7 segments	7 segments	7 segments	
USB HOST	Υ	Υ	Υ	
PC Connection with USB	Υ	Υ	Y	
Memory	2GB	2GB	2GB	
Software Web Server	Υ	Υ	Y	
Cloud Dashboard Management Option	Υ	Υ	Y	
Weight (Batteries Included)		780g		
Case and Protection	IP67			
Dimensions (L x W x H, without cable glands and antenna)	151 x 125 x 90 mm			
Material	Polycarbonate			
Wiring	5 screws clamp termination block up to 1,3mm2 (16AWG)			
Calibration	Recommended every 1 year			
Operating Voltage	7,2 to 14V DC, 12W Max			



The key of our solution is in the software. The **motion solution** is not only a collector of data coming from sensors; it's a way to **correlate motion and its cause** through the data analysis **with Artificial Intelligence algorithms**. All this with the aim to reduce environmental and structural damages.



BENEFITS

- Reduction of operations and maintenance costs
- Reduction of structural collapse risk
- FEATURES
- Hardware and Software Motion Solution
- Third Part Cloud Platform compatible
- 👸 WHERE
 - Bridge / Structural Monitoring
 - Environmental (Water, Soil, Air) Monitoring

- Increase of accuracy in data analysis
- Increase of safety in work and public places
- EDGE Platform
- Data accessible anytime, anywhere
- Waste Monitoring
- Energy / Oil&Gas Monitoring

WE CONNECT REAL WORLD

