4next
TECHNOLOGY SYSTEMS

Above all else...
GATHER THE DATA

Solutions designed and produced in Italy

WHO IS 4NEXT

4next is a consolidated group of experts that designs and manufactures products for **automation**, **data collection** and **management** in M2M and IoT applications.

Our product lines include:

1. CONFIGURABLE DATA LOGGER
2. PROGRAMMABLE RTU
3. COMMUNICATION GATEWAY
4. PROTOCOL CONVERTERS
5. WIRELESS BRIDGES AND SENSORS

The ideal applications to make the most of the potential of our products are: **metering** (Energy, Water, Gas), **water treatment**, **renewables**, **industrial** and **process** control, **measurements** in thermal power plants, agri-food **monitoring**, **automotive** and vehicle **fleet management**.

Our mission is to conceive, design and develop cutting-edge technical solutions in the areas of expertise and transforming relationships with our customers into real partnerships: strong and trusting relationships that have often led us to jointly develop ad-hoc products and systems.

This has been possible thanks to our decades of experience in the field of electronics, information technology and automation which allowed us to conceive the best solution according to the available budget and the desired time to market.

All this passes through the culture of innovation that has always been rooted in our company.

CEO & FOUNDER

Gino Cecchettin

CONTENT INDEX

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GATHER THE DATA

Innovation is the outcome of a habit, not a random act.

SUKANT RATNAKAR

Data Logger

DATA LOGGERS OF THE “EASY” FAMILY INTERFACE WITH ALL **MODBUS RTU AND TCP** DEVICES AND SEND DATA TO THE CLOUD USING MQTT, HTTP AND FTP STANDARD PROTOCOLS.

- **DATA SAVING ON SD MEMORY**
- **EASY IMPORT FROM CSV**
- **LIBRARIES IMPORT / EXPORT**
- **AUTOMATIC EXPORT IN CVS / JSON**
- **DATA SENDING TO THE CLOUD THROUGH MQTT PROTOCOL**
- **REAL TIME REGISTRATION**

EasyLog

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EasyLog XL

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EasyNET

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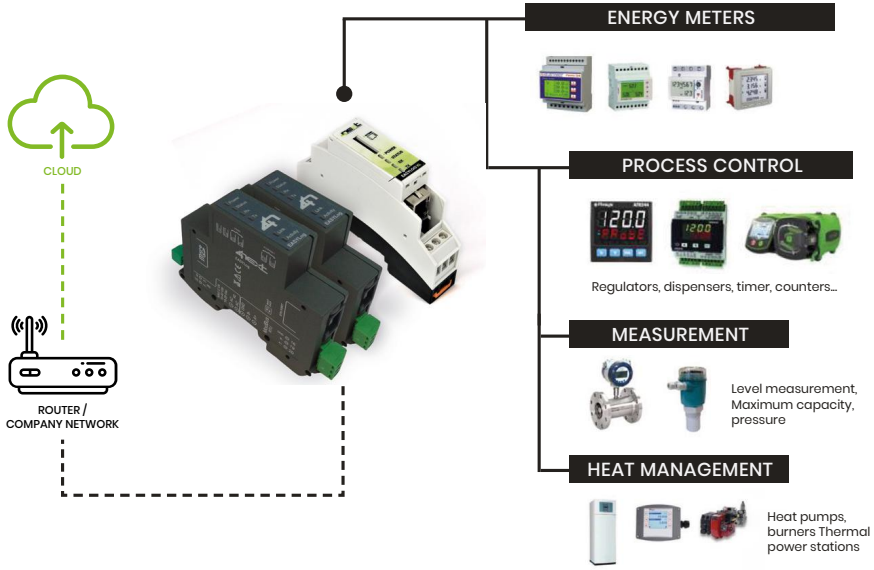
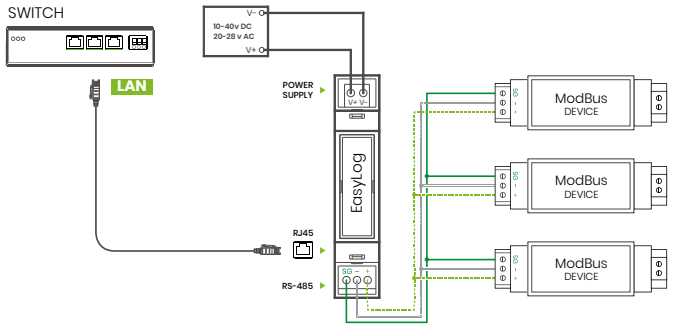
Among the applications where these data loggers’ functions are ideal, we find:

- METERING
- RENEWABLES
- INDUSTRIAL AND PROCESS CONTROL
- WATER TREATMENT
- MEASUREMENT IN THERMAL PLANTS
- AGRI-FOOD MONITORING

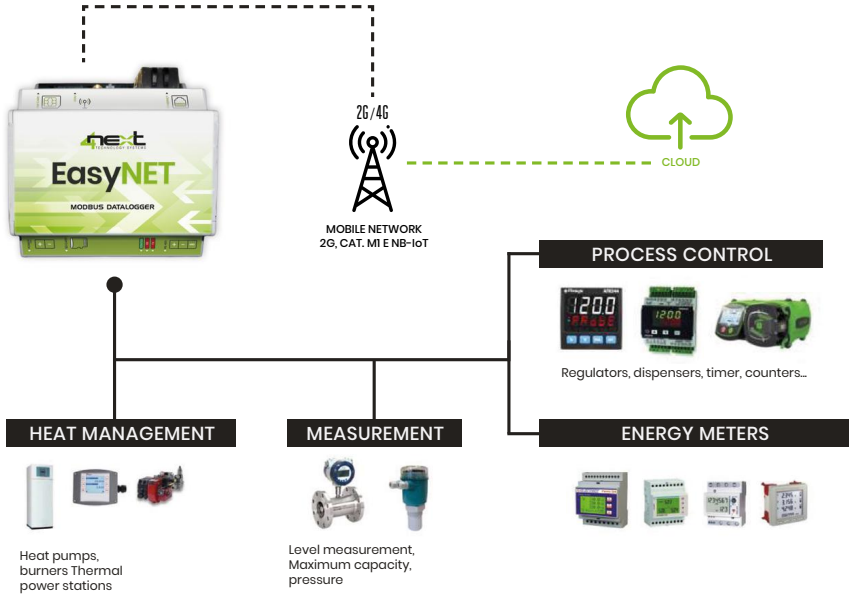
EasyLog / EasyLog XL



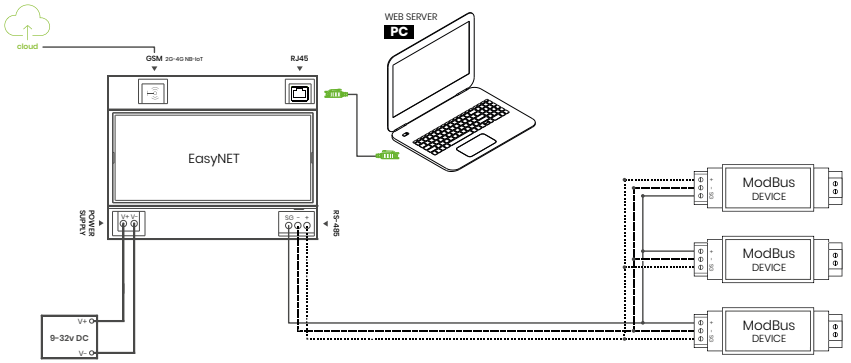
CONNECTION SCHEMES



EasyNET



CONNECTION SCHEMES



Comparative technical features

	EasyLog	EasyLog XL	EasyNET
Power supply	10-40 v DC / 20-28 v AC	10-40 v DC	10-40 v DC
Ethernet port	10-100 Mb/s	10-100 Mb/s	10-100 Mb/s
RS485 port	1200-115200 bps	1200-115200 bps	1200-115200 bps
Signaling LEDs	✓	✓	✓
Size	90x70x17 mm	90x70x17 mm	90x70x60 mm
Operating temperature	-20°C + 60°C	-20°C + 60°C	-20°C + 60°C
DIN rail support	1 module	1 module	4 modules
Average absorption	<: 1,5 W	<: 1,5 W	<: 4 W
CE certification	✓	✓	✓
Managed variables	150	384	384
ModBus writing	⊗	✓	✓
Email sending	⊗	✓	✓
MQTT	✓	✓	✓
FTP	✓	✓	✓
Modem 2G/4G / NB-IoT	⊗	⊗	✓

Bridge ModBus

MODBUS BRIDGES ALLOW MODBUS RTU DEVICES TO COMMUNICATE WITH IP DEVICES (PC, PLC, ELECTRONIC BOARDS).

- **SPECIALLY DESIGNED FOR INDUSTRIAL ENVIRONMENTS**
- **SUPPLY EXTENDED RANGE 10-30VDC**
- **PROTECTION ON THE SERIAL PORT THANKS TO THE GALVANIC ISOLATION**
- **EASILY PROGRAMMABLE THANKS TO THE INTEGRATED WEB INTERFACE AND A FREE APP**

They represent the ideal solution for any type of application where serial devices must communicate with the most modern automatic systems.

VERSIONS: MDB-E Ethernet, MDB-W WiFi and NetLink - Radio

MDB-E

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MDB-W

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NETLINK

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EASYUA

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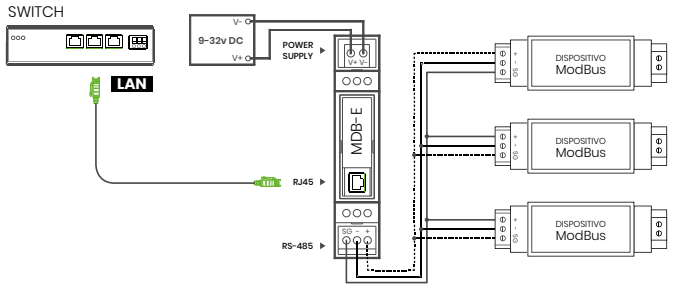
MDB-E

MDB-E IS AN ETHERNET – SERIAL RS232/RS485 COMMUNICATION BRIDGE.

ModBus Bridge **with easily programmable NFC interface**: it does not need any additional software for configuration.

CONNECTION SCHEMES

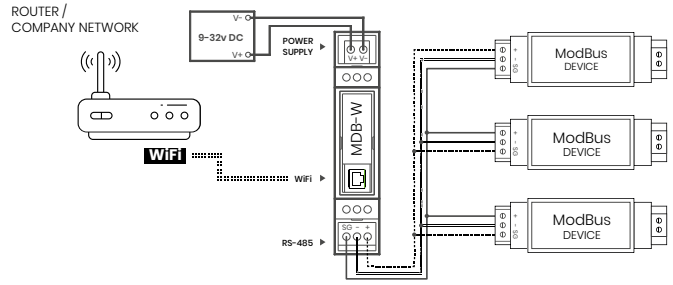


MDB-W

MDB-W IS A WIFI – SERIAL RS232/RS485 COMMUNICATION BRIDGE.

ModBus Bridge **with WiFi / Bluetooth interface.** It is **easy to program** and to configure thanks to a dedicated APP.

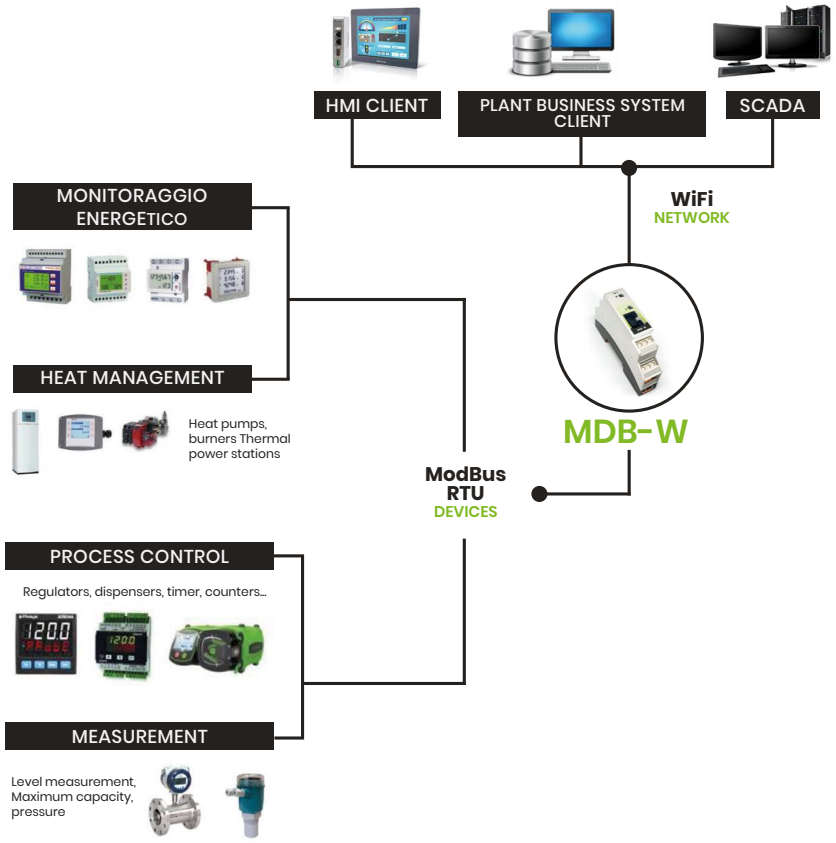
CONNECTION SCHEMES



MDB-W

MDB-W IT IS IDEAL AS MODBUS PROTOCOL CONVERTER.

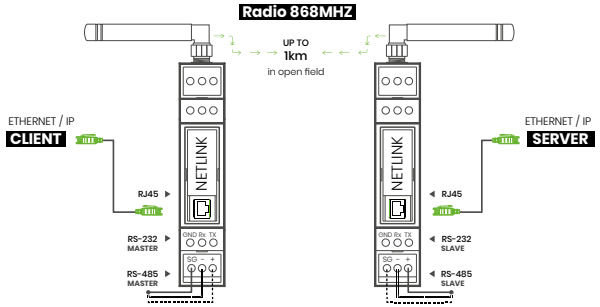
Bridge functions are available in **3 versions**:
WiFi - RS485, WiFi RS232 & RS232 - RS485



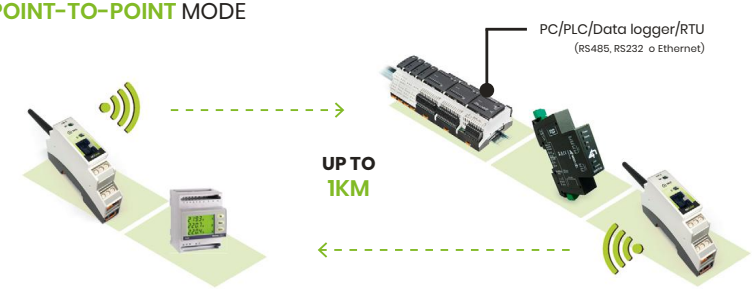
NetLink

NETLINK IS A RADIO COMMUNICATION BRIDGE BETWEEN DEVICES WITH SERIAL OR ETHERNET.

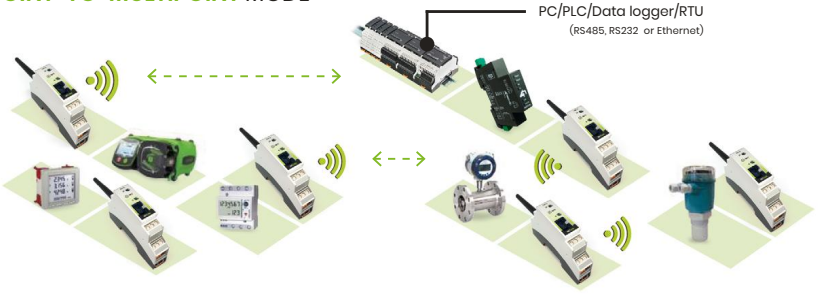
NetLink is a radio communication bridge that allows devices equipped with a serial and/or Ethernet port to communicate wirelessly with each other up to 1 km.



POINT-TO-POINT MODE



POINT-TO-MULTIPOINT MODE

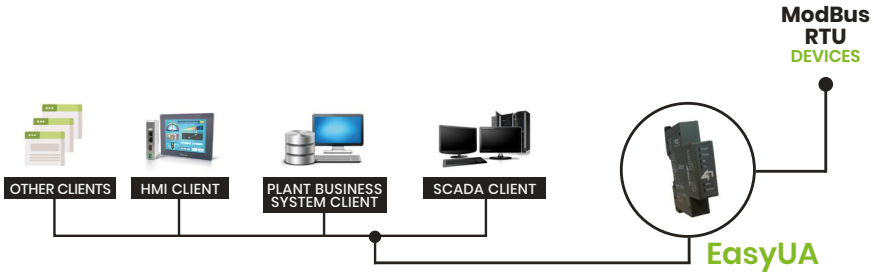


- ✓ TRANSPARENT CONNECTION / CABLE REPLACEMENT
- ✓ RADIO BRIDGE BETWEEN SERIAL AND SERIAL (RS232 & RS485)
- ✓ RADIO BRIDGE BETWEEN SERIAL AND ETHERNET (AND VICEVERSA)
- ✓ RADIO BRIDGE BETWEEN ETHERNET AND ETHERNET

EasyUA

EASYUA IS AN OPC UA GATEWAY FOR MODBUS RTU DEVICES.

OPC UA Gateway that communicates with **ModBus RTU** devices and makes data available to OPC UA clients. EasyUA can be completely managed remotely as the configuration is possible via the integrated browser. Its **installation is simple** and it does not require special programming skills. ModBus communication libraries also allow an **easy access to all devices without coding**. EasyUA is very compact, it is a DIN module device, easy to assemble and economically competitive.



Comparative technical features

GENERAL	MDB-E	MDB-W	NETLINK
RS485 & RS232 optoisolated (Rx, Tx, GND)	✓	✓	✓
TCP, UDP or ModBus TCP	✓	✓	✓
Serial communication speed up to 115.200 bit/s	✓	✓	✓
WiFi 802.11 b/g/n, WPA, WPA2, WPS	⊗	✓	⊗
868 MHz radio module	⊗	⊗	✓
Programming via NFC	✓	⊗	✓
MECHANICAL	**MDB-E**	**MDB-W**	**NETLINK**
IP41 plastic case for DIN rail	✓	✓	✓
Size: 18 x 90 x 60 mm (1 module DIN)	✓	✓	✓
SOFTWARE	**MDB-E**	**MDB-W**	**NETLINK**
ModBus TCP/ModBus RTU conversion on RS485/RS232	✓	✓	✓
ModBus RTU RS485/RS232 conversion	✓	✓	✓
Bidirectional protocol conversions on all channels	✓	✓	✓
Easy and fast configuration via APP	✓	✓	✓
ENVIRONMENTAL	**MDB-E**	**MDB-W**	**NETLINK**
Operating temperature: -20°C ÷ 60°C	✓	✓	✓
Relative humidity: from 0 to 80% without condensation	✓	✓	✓
Storage temperature: -40° ÷ + 60°	✓	✓	✓

IoT Gateway

IOT GATEWAYS ALLOW NOT ONLY THE COMMUNICATION BETWEEN DEVICES OR WITH THE CLOUD BUT ALSO TO PERFORM DATA PROCESSING.

Owa3x

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Owa4x

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Owa450

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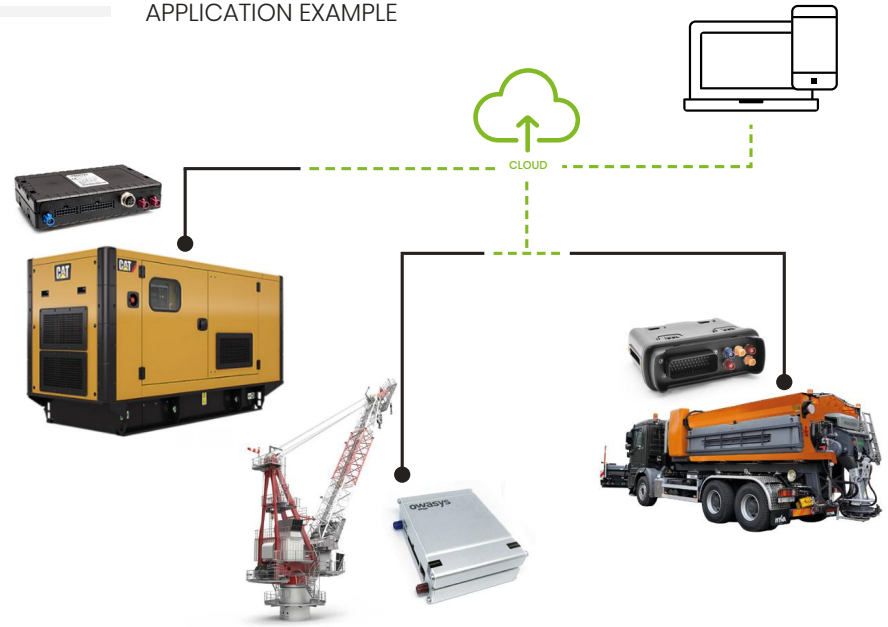
APPLICATION EXAMPLE



Owa3x

OWA3X IS A FLEXIBLE AND POWERFUL IOT GATEWAY BASED ON LINUX O.S.

This gateway allows complete control, even remotely. It is equipped with numerous wired and wireless interfaces, which provide comprehensive supervision capabilities for **remote management and monitoring**. Owa3x is technologically **advanced**. Thanks to the combination of a set of technologies and functionalities, it is the ideal solution for telemetry development and for remote control applications.

OWA3X TECHNICAL FEATURES

Power supply from 9 to 48Vdc	3 RS232 & 1 RS485
Consumption 50mA, 9mA in Standby	2 CAN, 2 K-Line & iButton
Operating temperature: from -40°C to 85°C	Audio, USB
10 configurable digital inputs / outputs	Ethernet, uSD
4 analog inputs	Bluetooth™ (Bluetooth 2.1, BLE)
GSM/GPRS & UMTS/HSPA & LTE	WiFi Satellite
GNSS (GPS + GLONASS + Galileo)	I/O expansion

Owa4x

OWA4X IS AN OPEN AND POWERFUL IOT LINUX IP67 GATEWAY.

Owa4x is a **programmable** IoT linux IP67 gateway. It is open, powerful and it is ITxPT certified. It allows you to create your own application with extreme ease, to **collect, select and process** significant data from the field and to send remotely only the important information.

OWA4X TECHNICAL FEATURES

IP67 – water and dust resistant with industrial protection	
ARM cortex A8 32bit 800MHz processor	1GB Flash memory + 512MB DDR3
Linux debian 8 distribution	Configurable as any Linux PC
GSM/GPRS & UMTS/HSPA & LTE	GNSS (GPS + GLONASS + Galileo)
WiFi 802.11 b/g/n & Bluetooth 4.2	Energy saving mode
Power supply from 9 to 48 Vdc	Lithium-ion battery
Consumption 50mA, 9mA in Standby	Digital & Analog I/O
Operating temperature: from -40°C to 85°C	3 RS232 & 1 RS485 Up to 2 K-line bus
Up to 4 CAN bus (1Mbps CAN 2.0B)	USB Host 2.0
Ethernet, Maxim 1-wire, uSD interface	Audio Codec

Owa450

OWA450 IS AN ITXPT CERTIFIED IOT GATEWAY FOR DATA COLLECTION / PROCESSING.

It is a family of **powerful** IP67 IoT Linux gateways for **collecting and processing data** from sensors, devices and peripherals. It is ideal for **monitoring and controlling any remote device**, sending only the relevant information to the Cloud or to your control center. The application where Owa450 is the best solution is the Automotive.

OWA450 TECHNICAL FEATURES

Kernel Linux 4.14.67 & Debian 9 Stretch operating system	
ARM cortex A8 32bit 800MHz processor	512 MB of RAM DDR3
Flash NAND 1GB + 32GB via USB card	LTE Cat 1 with UMTS / HSPA
Receiver: GPS / GLONASS / QZSS / BeiDou 72 channels - continuous tracking receiver	fallback GSM / GPRS / EDGE: Quad band 850/900/1800 / 1900MHz
GALILEO E1B / C Ready	
Rechargeable battery opt. Lithium-ion 3,7 V	Power supply from 9 to 48Vdc
Programmable in C / C ++, scripting Shell, Python, Java, NodeJS, Golang and Lua	Extensive libraries and APIs to make the most of the hardware
Open-source tools, official Debian software and repositories	Code examples, application notes and protocols (CAN and ModBus)
Backward compatible with existing Owa3x applications	

I/O ModBus RTU and TCP modules

I/O ACQUISITION MODULES WITH BUS CAN AND MODBUS ARE ESPECIALLY DESIGNED FOR IDUSTRIAL APPLICATIONS.

I/O Modules features:

- **SPECIALLY DESIGNED FOR INDUSTRIAL ENVIRONMENTS**
- **ROBUST LAYOUT AND EASY INSTALLATION**
- **GALVANICALLY ISOLATED TO PROTECT THE WHOLE CIRCUIT**
- **EASY AND FAST CONFIGURATION THANKS TO THE NFC WEB INTERFACE AND TO THE FREE APP FOR INSTALLATION**

Thanks to inputs configurability, each module is versatile and can be used for different types of probes. ModBus RTU (RS485) and ModBus TCP (Ethernet) I/O acquisition modules come with a DIN rail case and removable terminals for easy installation and wiring.

NXT-M2

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NXT-A4

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NXT-D16

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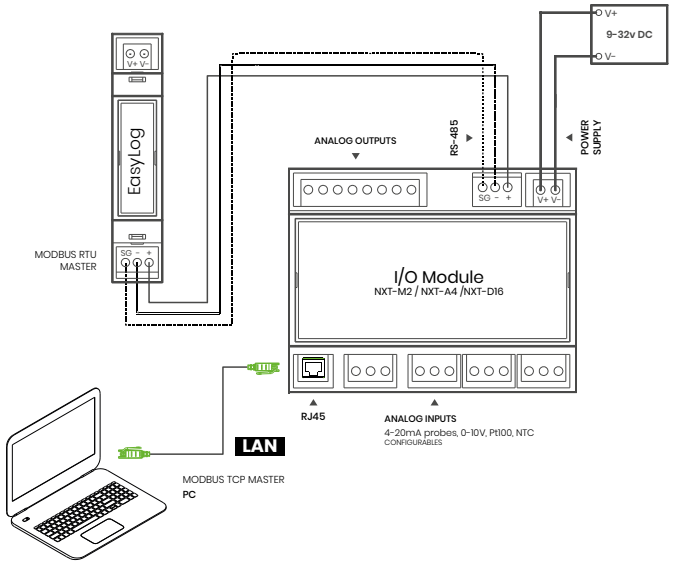
NXT-M2 / NXT-A4 / NXT-D16

NTX IS AN I/O MODULE COMPATIBLE WITH RTU AND TCP MODBUS PROTOCOL.

This remote I/O acquisition ModBus module is available in three VERSIONS: NXT-M2, NXT-A4 & NXT-D16

	NXT-M2	NXT-A4	NXT-D16
Configurable analog inputs (0-10V, 4-20mA, Pt100, Pt1000, NTC, PTC, Thermocouples)	2	4	⊗
Digital inputs	2	⊗	16
Analog outpus (0-10V & 4-20mA)	⊗	4	⊗
Digital outputs	2	⊗	16
NFC interface for the configuration	✓	✓	✓
Optional 868MHz radio module	✓	✓	✓
WiFi interface	✓	✓	✓
NXT power supply from 12-48 vDC	✓	✓	✓

CONNECTION SCHEMES



Atvise®

ATVISE IS A SCADA SOFTWARE IN PURE WEB TECHNOLOGY.

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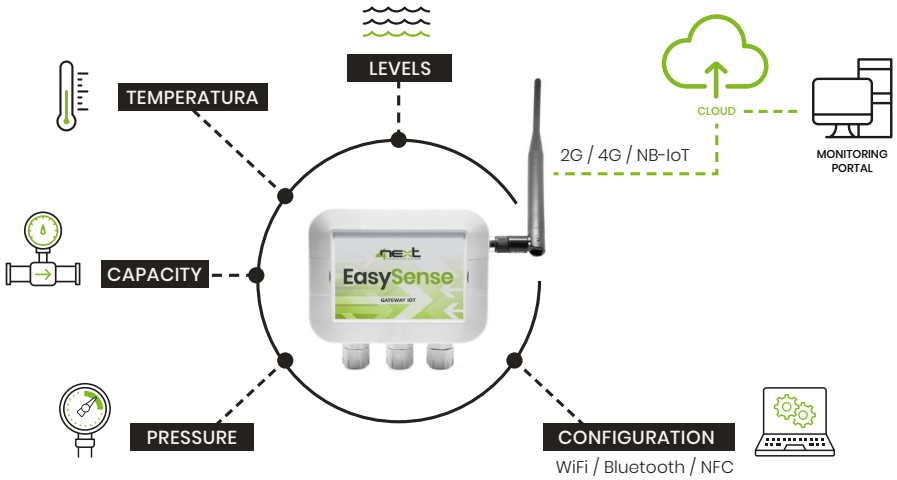
Atvise® is a powerful **HMI and SCADA visualization software**. It is entirely based on the latest Internet technologies. Using open interface standards such as HTML5 and vector graphics (SVG), it allows access to information from any PC, Mac, Mobile or Smart Phone device without additional plugins. Valid **industrial standards** (OPC UA) allow to minimize development times, in particular the parameterization of plants and processes. Atvise® Scada independently supports all the typical SCADA functions such as alarms, logging, trending, user management, multilingual, etc. Thanks to its **flexibility**, it is generally applicable to all industrial sectors, with its main segments in the field of infrastructure, building automation, power generation, production plants and mechanical engineering.

EasySense

EASYSENSE IS A BATTERY POWERED IOT GATEWAY WITH I/O FOR THE CONNECTION TO A WIDE RANGE OF SENSORS.

EasySense is designed to operating in environments particularly burdensome where power is not always available and where it is necessary to **acquire data from different types of sensors**. EasySense is able to communicate even with sensors and **RTU ModBus** devices. Thanks to the integrated WiFi / Bluetooth module and the NFC, the **configuration is easy and fast**.

- MODEM 2G & 4G (LTE CAT-M1 / NB-IoT)
- HIGH PRECISION GPS
- WIFI & BLUETOOTH COMMUNICATION
- RUGGED AND WATERPROOF IP67 CASE
- BATTERY POWERED OR BY POWER SUPPLY 10-35 VDC
- WIDE TEMPERATURE RANGE -20 ÷ +65 °C
- 2 ANALOG INPUTS CONFIGURABLE BY ENTRANCE 0-5V, 0-10V, 4-20MA E PT100
- 3 NA DIGITAL INPUTS NOT ISOLATED
- 2 DIGITAL OUTPUTS
- RS485
- CLOCK FUNCTION (RTC)
- NFC
- 3-AXIS ACCELEROMETER



4NEXT Web App

A GLOBAL VISION OF TELECONTROL AND SUPERVISION OF MANAGEMENT SYSTEMS ALSO INCLUDES A CLOUD PLATFORM WHICH ALLOWS TO

- **VISUALIZE THE CURRENT PLANT STATUS**
- **CONSULT HISTORICAL DATA AND DO REPORTS**
- **NOTIFY ALARMS VIA EMAIL AND TELEGRAM MESSAGES**
- **GRAPH DIFFERENT SIZES WITH DIAGRAMS AND HISTOGRAMS (EX. POWER, ENERGIES, CONSUMPTION...)**

The advantages you can obtain from this new project development are:

- The possibility to **monitor systems from anywhere in the world**, using any internet connection (PC, PDA, telephone)
- **No additional software**: the user doesn't need any specific software
- **No additional hardware** is required
- The maintenance of the portal is **easy to update and customize** because it is unique and centralized
- **Economical**: the telephone connection exists only when it is necessary, to avoid excessive consumption

Sede Legale

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