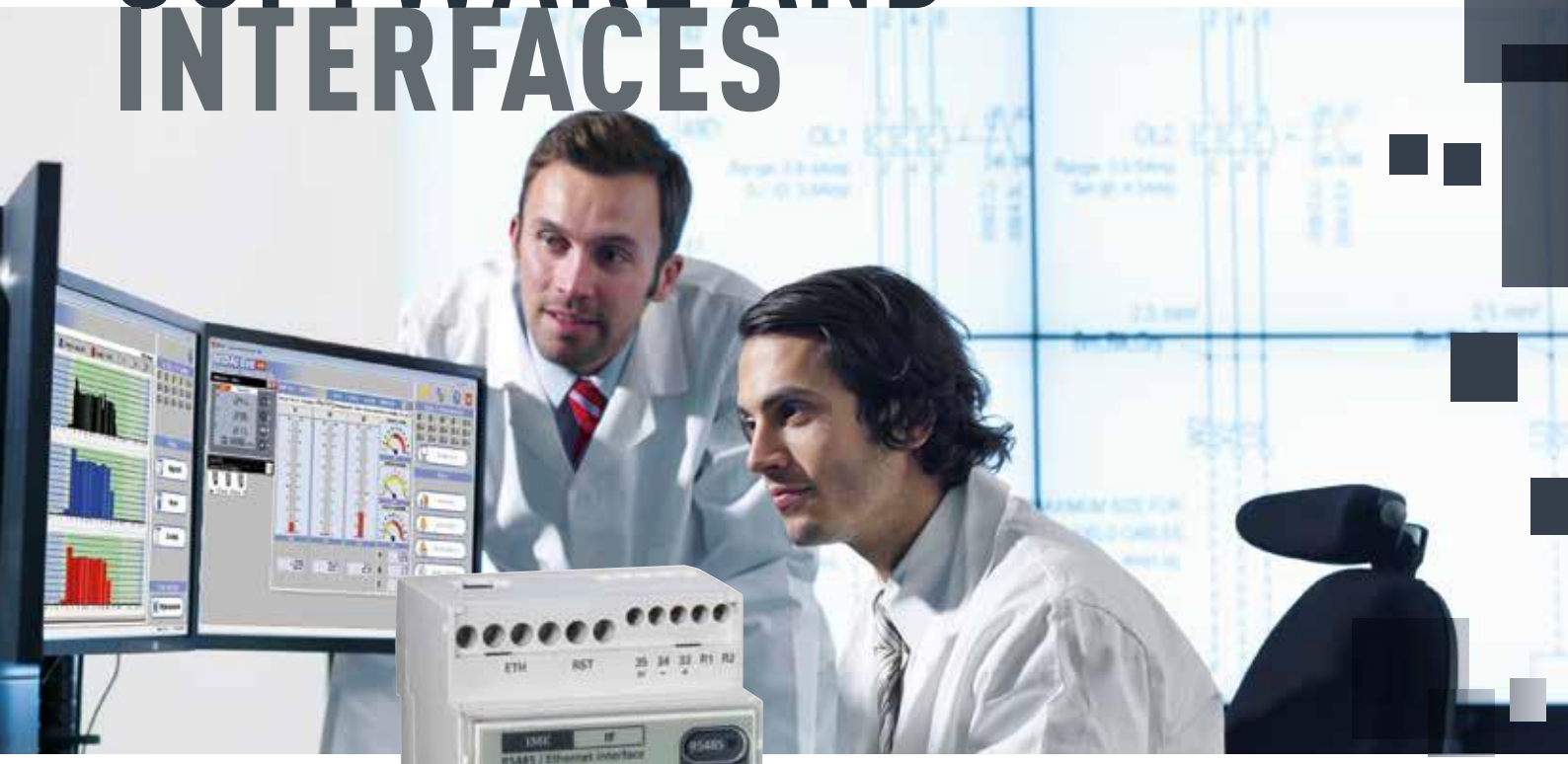
# SOFTWARE AND INTERFACES





# MIDAs Evo software

**MIDAs Evo** is the software that allows the centralized measurement acquisition, management and processing.
Is available in 4 functional levels which differ for the number of devices they are able to manage (from 5 to 1020).
For the most skilled users, the software offers the potentiality of a proper SCADA with advanced features to configure its own application in terms of interactive synoptics.

The program simply allows:

- Data acquisition via RS485/RS232 serial port and/or Ethernet up to 15 channels
- Instantaneous displays of parameters measured by devices (multifunction Nemo, energy meter Conto and pulse concentrators used for accounting of electricity or other sources)
- Analog or digital display
- Realization of graphic trends for one or more magnitudes with the opportunity to export in a tabular form
- Setting of software alarm thresholds to password-enabled users and e-mailing
- Display of active alarms
- Historical archive of events and alarms
- Monitoring of energy consumption for each device or for set creating one or more tariff calendars
- Web-server function to grant remote access to the central system where MIDAs Evo is installed using a simple Internet browser by specifying the IP address in the address bar

### ▶ Up to 1020 meters

All the instruments connected to the network are
organized into sections:
- max.17 meters for section
- max. 6 sections for page
- max. 60 sections

With a simple click on a single device, it is possible to control by virtual instruments all measured magnitudes.

### ▶ Graphic trends

It is possible to create graphs of one or more
measured magnitudes in real time or relevant to
a past time, simply by accessing the database,
also observing the measured magnitudes in Excel
compatible format file printable or exportable tables.

### ▶ Alarms

The enabled users can set software alarms on measurements returned from devices. Detected
alarms and supervisor events (login, logout,
communication errors) are stored into the database.

### ▶ Consumptions analize

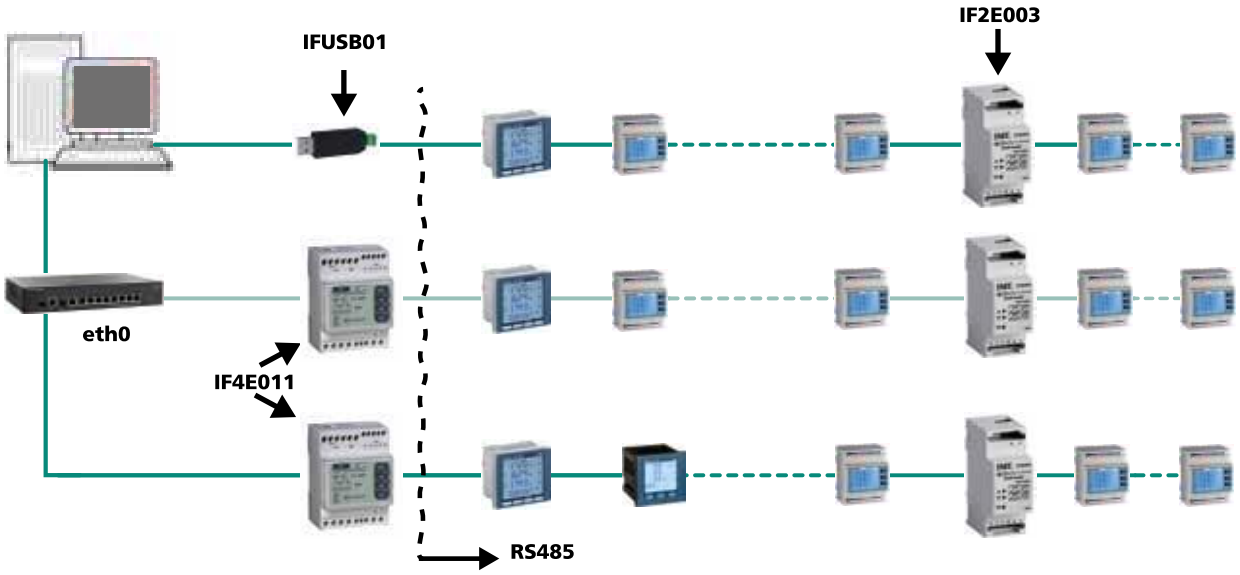
MIDAs Evo offers the possibility to analyze the consumptions applying for each type of energy up to 3 different tariff calendars. Data are stored without
tariff indication, but with date and time only.
The creation of tariff calendars is very simple and straightforward; the user has a tool to simulate the consumption costs and decide the best tariff profile.

# Monitoring systems

Thank to the management software and the interfaces range is possible to create more monitoring systems to allow local and/or remote management.

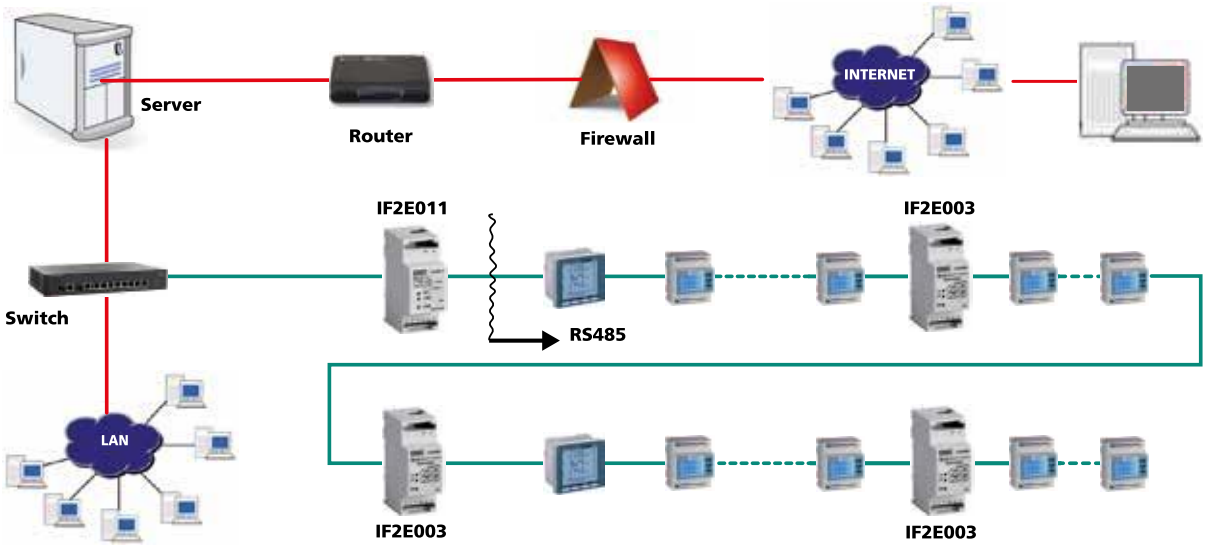
## LOCAL MONITORING RS 485 / Ethernet connection

PC whit MIDAs Evo, connected with the devices using both Ethernet port (through the network switch) and a Ethernet / RS485 interface, and COM port and USB/RS485 interface.
IFUSB01: USB / RS485 interface
IF4E011: RS485 / Ethernet interface
IF2E003: RS485 / RS485 repeater Over 31 devices or 1200 m. of line




## REMOTE MONITORING Internet connection

PC whit MIDAs Evo, mounted in a network different from the one where the devices are. Query through network router where the system under monitoring is.
IF2E011: Ethernet / RS485 interface
IF2E003: RS485 / RS485 repeater Over 31 devices or 1200 m. of line



# Software interfaces

## Devices


IFUSB01


IF2E002


IF2E003


IF2E011


IF2ER01


IFMTR01


IF4E011


IF4C001

SWMF..

| Cat. Nos. | **Conversion interface USB-RS485** |
|---|---|
| | it allows the direct connection to PC of Conto energy meters and Nemo multifunctions with RS485 output. It is exclusively suggested for local use. Useful to carry out programming on field and download the data from the memory module IF96012 combined with F.O.C. IDM Evolution software, downloadable from the website. |
| IFUSB01 | USB-RS485 |

| Cat. Nos. | **Conversion interface RS232-RS485** |
|---|---|
| | Direct connection on RS485 side up to 31 devices on a distance of 1200m at 9600 Baud or via repeaters up to 255. |
| | Aux |
| IF2E002 | 80…270Vac+100…300Vdc |
| IF2E102 | 20…60Vdc+24Vac |

| Cat. Nos. | **Repeater interface RS232-RS485** |
|---|---|
| | It allows to amplify the signal to 31 other devices over a distance of 1200m included in the same RS485 line |
| | Aux |
| IF2E003 | 80…270Vac+100…300Vdc |
| IF2E103 | 20…60Vdc+24Vac |

| Cat. Nos. | **Conversion interface Ethernet-RS485** |
|---|---|
| | It allows to interface Conto energy meters and Nemo multifunctions to an Ethernet 10/100MB network. Direct connection on RS485 line up to 31 devices or through repeaters up to 255. Two Bridge operating modes (Modbus RTU or Over TCP) or Web Server for the reading of main parameters and relevant download in csv format through a common internet browser. Direct access by IP interface |
| | Aux |
| IF2E011 | 80…270Vac+100…300Vdc |
| IF2E111 | 20…60Vdc+24Vac |

| Cat. Nos. | **Conversion interface RS485-radio 868MHz** |
|---|---|
| | It allows data conversion of Nemo multifunctions and Conto energy meters on serial RS485 (direct connection up to 31) in a 868 MHz radio signal to be sent to the gateway transceiver IFMTR01 |
| | Aux |
| IF2ER01 | 9…30Vdc |

| Cat. Nos. | **Gateway interface radio transceiver 868MHz-Ethernet** |
|---|---|
| | It allows the conversion of the radio signals coming from the interfaces IF2ER01 and /or IF96018 making them available on the Ethernet output for connection to supervision systems. Adjustable stylus antenna with extension 20cm cable. |
| | Aux |
| IFUSB01 | 9…30Vdc / 230Vac (Via power adapter provided in the box) |

| Cat. Nos. | **Ethernet-RS485 Bridge or Datalogger function** |
|---|---|
| | Multisession conversion interface (up to 4) Ethernet-RS485/ Datalogger, it allows to interface Conto energy meters and Nemo multifunctions to an Ethernet 10/100MB network. Direct connection on RS485 line up to 31 devices or through repeaters up to 255. Two Bridge operating modes (Modbus RTU or Over TCP) or Datalogger to store the energy data for each connected device and on demand to generate consumption reports for a selected period with the possibility to deliver by email to the system administrator. In this configuration, you can manage up to 64 different energy meters / multifunctions and users with individual access and a system administrator. Direct access by IP interface. |
| | Aux |
| IF4E011 | 80…270Vac+100…300Vdc |

| Cat. Nos. | **Pulse concentrator 12 inputs** |
|---|---|
| | It allows to interface the Conto energy meters and all devices with pulse outputs ( ex. water and gas meters) to data acquisition systems through RS485 Modbus-RTU output. Three possible configurations: 12 inputs from contact SPST-NO or 6 inputs from contact SPST-NO + 6 voltage contacts 27V max or 6 inputs from contact SPST-NO + inputs S0 (Wh+/Wh-/varh+/varh-/tariff change) for connection to ES card for GME (Enel measuring group) |
| | Aux |
| IF4C001 | 230Vac |

| Cat. Nos. | **MIDAs Evo Management software** |
|---|---|
| | Management software for local monitoring networks and/or remote with Conto energy meters and Nemo multifunctions. It allows a real-time visualisation of data measured by the devices on field and the realisation of reportsdaily / monthly / yearly consumption divided by preselectable tariffs. Possibility to set software alarm thresholds by sending e-mail. Installation on PC with operating systems Windows XP Pro SP3 workstations, Windows 7 Pro 32 and 64bit, Windows8 32 and 64bit, Windows8.1 32 and 64bit. |
| SWMF2 | licence up to 5 devices |
| SWMF3 | licence up to 20 devices |
| SWMF4 | licence up to 100 devices |
| SWMF5 | licence up to 1020 devices |

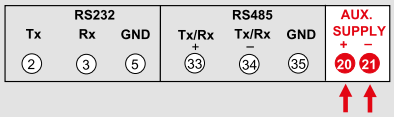
## Technical features

| CAT.NOS. | IF2E002- IF2E102 | IF2E003- IF2E103 | IF2E011- IF2E111 | IF4E011 | IF4C001 |
|---|---|---|---|---|---|
| TECHNICAL NOTES | NT693 | NT694 | NT809 | NT891 | NT783 |
| **COMMUNICATION** | | | | | |
| Conversion: | RS485-RS232 or RS232-RS485 | RS485-RS485 | RS485-Ethernet | RS485-Ethernet | RS485-RS485 |
| **AUXILIARY SUPPLY** | | | | | |
| Rated voltage: | 80...270Vac + 100...300Vdc or 24Vac + 20...60Vdc | | | 80...270Vac + 100...300Vdc | 230V |
| Tolerance: | 0,85...1,1Uaux | | | | |
| Frequency: | 50Hz | | | | |
| Working frequency: | 47...63Hz | | | | |
| Rated burden: | ≤ 4VA | | | | ≤ 5 VA |
| **ELECTROMAGNETIC COMPATIBILITY** | | | | | |
| Emission and immunity tests according to: | EN61326-1 | | | | |
| **ENVIRONMENTAL CONDITIONS** | | | | | |
| Nominal temperature range: | -5...55°C | | | | |
| Limit range for storage and transport: | -25...70°C | | | | |
| Suitable for tropical climates | yes | | | | |
| Max. power dissipation * : | 3,5W | | | | 3W |
| **MECHANICAL FEATURES** | | | | | |
| Housing: | 2 modules DIN43880 (35mm) | | | 4 modules DIN43880 (35mm) | |
| Connections: | screw terminals | Aux supply.: screw terminals<br>RS485: screw terminals | Aux supply.: screw terminals<br>RS485: plug-in connector<br>Ethernet: RJ45 connector | | screw terminals |
| Housing material: | self-extinguishing policarbonate | | | | |
| Protection degree (EN60529): | IP50 (front frame) IP20 (terminals) | | | | |

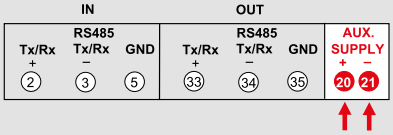
* For switchboard thermal calculation

## Wiring diagrams

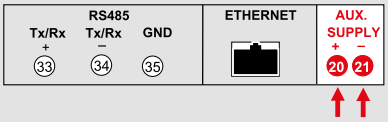
IF2E002- IF2E102



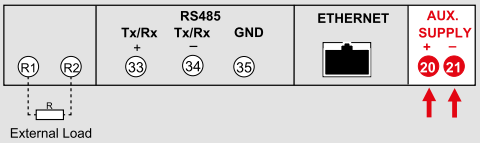

IF2E003- IF2E103




IF2E011- IF2E111




IF4E011




IF4C001