



ETHERNET /RS485 interface converter



Il gateway ETHERNET FRER permette di collegare ad una rete Ethernet (usando un solo indirizzo IP) fino a 32 dispositivi FRER dotati di interfaccia RS485 mettendo a disposizione dell'utente due possibili modi di funzionamento (anche contemporanei tra loro):

1. Conversione dal protocollo Modbus/TCP a Modbus RTU (per max. 3 clients contemporanei)
2. Web-server integrato (funzionalità vedi pag. 1.10)

Inoltre, attraverso opportune impostazioni del router di rete, Il gateway FRER può essere reso accessibile tramite Internet, consentendo all'utilizzatore di visualizzare e registrare le misure effettuate dagli strumenti con un semplice browser e da qualsiasi parte del mondo.

The FRER ETHERNET gateway allows to connect to an Ethernet network (using a single IP address) up to 32 FRER devices fitted with RS485 interface and provides the user two different kind of operation (also contemporary):

1. Conversion from Modbus / TCP to Modbus RTU (for up to 3 concurrent clients)
2. Web-server (features see pag. 1.10)

In addition, through appropriate settings of the network router, the FRER gateway can be accessible via Internet, allowing the user to view and record the measurements made by instruments with a simple browser from anywhere in the world.

DATI TECNICI - Technical data

DIMENSIONI - Dimensions

interfaccia Ethernet

velocità
connessione
protocollo

interfaccia seriale

connessione
protocollo
stop bits
parity bits
baud rate
segnali
protezione ESD

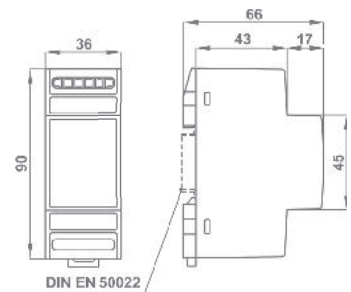
Ethernet interface

speed
connection
protocol

serial interface

connection
protocol
stop bits
parity bits
baud rate
data signals
ESD protection

IEEE802.3, IEEE802.3u
10/100 Mbps
1 x RJ-45
Multi-client Modbus TCP + HTTP
RS 485 Master
morsetti a vite / terminal blocks
ModBus RTU
1, 2
odd, even, none
9600, 19200, 38400 bps
RS485: Data+, Data-
15 kV

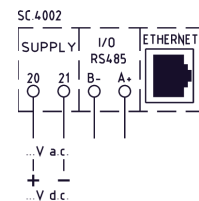


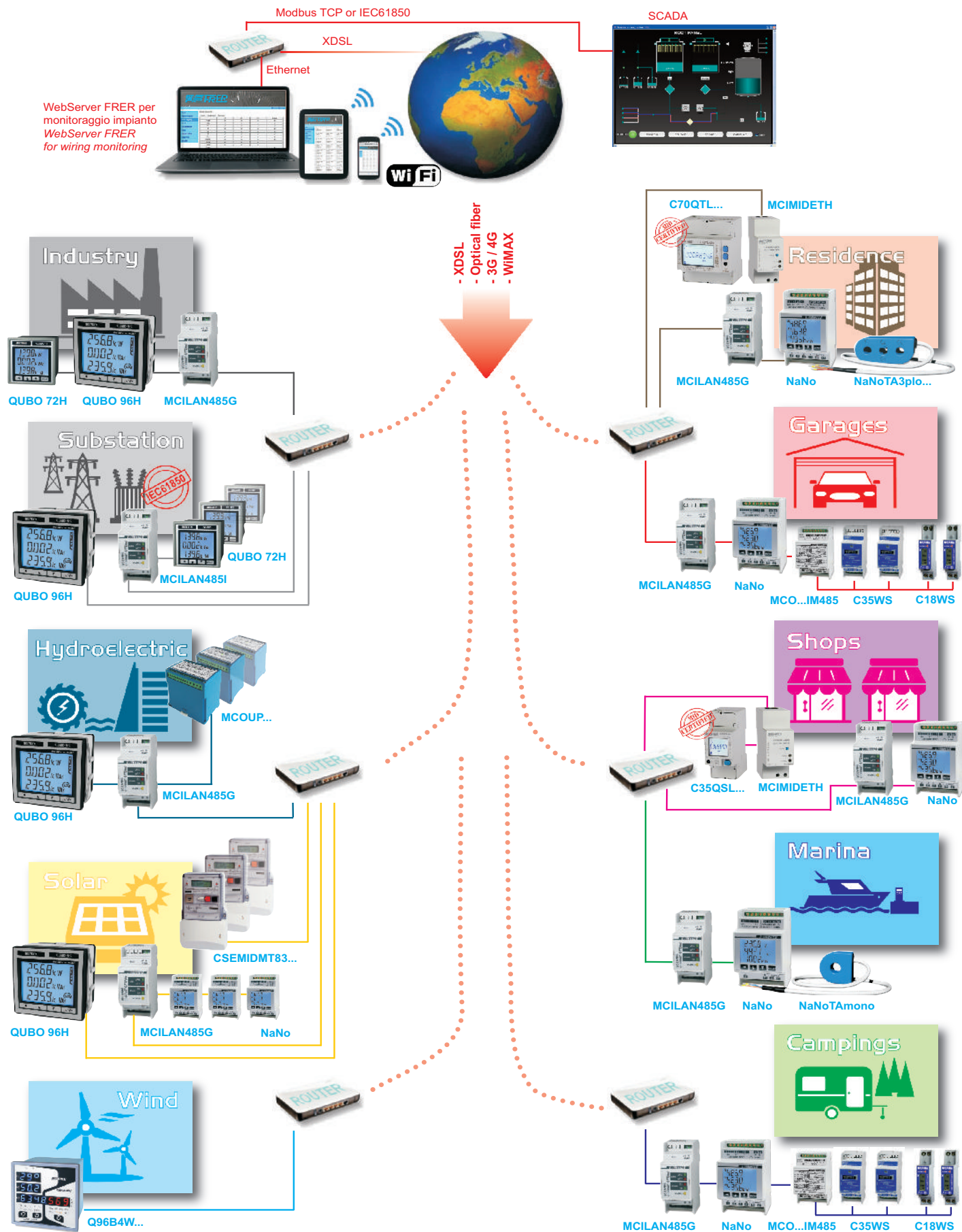
kg. 0,100

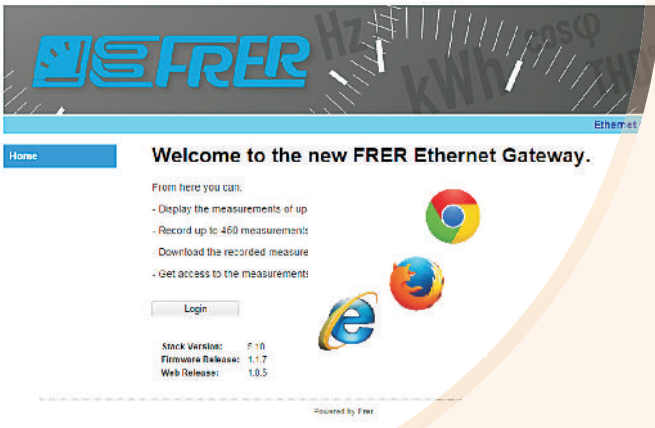
CODICI DI ORDINAZIONE - Ordering codes

SCHEMI DI INSERIZIONE - Wiring diagrams

Alimentazione - Aux. supply voltage	Codice - Code
20÷60Vac/dc (6VA/6W)	M C I L A N 4 8 5 G 3 2 L
80÷260Vac/dc (6VA/6W)	M C I L A N 4 8 5 G 3 2 H







Il mini WEB-SERVER di FRER è contenuto in tutti gli analizzatori di rete 96x96mm dotati di comunicazione Ethernet (Modbus TCP) e nei convertitori di interfaccia Ethernet /RS485 (MCILAN485...). Consultabile tramite qualsiasi browser per la navigazione in Internet, permette la visualizzazione delle misure di max. 32 strumenti e la registrazione, con avvio automatico o manuale, di 450 misure istantanee in modo simultaneo, scaricabili successivamente in formato .csv.

FRER mini-WEB SERVER is present in all 96x96mm network analyzer equipped with ethernet communication (Modbus TCP) and in our Ethernet /RS485 converters (MCILAN485...).

It works with any Internet Browser and allows to display measurements of max 32 analyzers, and to record, manually or time programmed, up to 450 measurements at the same time. That can be downloaded later as .csv file.

FUNZIONALITÀ - Functionality

- Visualizzazione delle misure di max 32 analizzatori / contatori
- Registrazione fino a 450 misure simultanee
- Download delle misure registrate in formato .csv
- NEW: registrazione su buffer circolare
- Accesso max 3 utenti contemporaneamente
- Livelli password / Admin

- Measurement display of up to 32 Network analysers/Energy meters
- Records up to 450 simultaneous measurements
- Recorded measurements downloaded in .CSV format
- NEW: circular buffer function
- Access up to 3 simultaneous users
- Admin password level

COMPATIBILITÀ - Compatibility



Q96P3H005E... - Q96P3H005G...
Q96S3L005E... - Q96S3L005G...
Q96C3LX60E... - Q96C3LX60G...



Q96B4W005E... - Q96B4W005G...



MCILAN485G32...



- Richiamo diretto in unica pagina di 32 dispositivi
- Descrizione dispositivo modificabile
- Identificazione automatica versione firmware- Visualizzazione immediata delle misure elettriche
- Conteggio energie su 4 quadranti
- Single page direct recall up to of 32 devices
- Changeable device description
- Automatic identification device firmware version
- Immediate display of electrical measurements
- 4 Quadrants energy counting

- Home
- Measurements
- Data Logging
- Users
- Local Network
- Clock
- Master RS485
- Discovery
- Reboot

Device: Main Switchboard

	L1	L2	L3	System	
V L-N	231,0	230,9	231,0	230,9	V
V L-L	400,0	400,0	400,1	400,0	V
I L	100,0	100,0	100,1	100,0	A
P	23,10	23,09	23,11	69,31	kW
Q	0,00	-0,02	-0,02	-0,04	kVAr
S	23,10	23,09	23,11	69,31	KVA
P.F.	1,000	1,000	1,000	1,000	---
Cos Phi	1,000	0,999 C	0,999 C	0,999 C	---
THD V	0,2	0,2	0,2		%
THD I	0,2	0,2	0,2		%
P avg				69,31	kW
Max P avg				69,31	kW
I avg	100,0	100,0	100,1		A
Max I avg	100,0	100,0	100,1		A
Wh +				39,0	kWh
Wh -				0,0	kWh
VARh +				0,0	kVArh
VARh -				0,0	kVArh
I N				0,1	A
F				50,00	Hz
Phase sequence				123	---
T				30,7	°C

The screenshot displays the FRER web server interface. On the left is a navigation menu with options: Home, Measurements, Data Logging, Users, Local Network, Clock, Master RS485, Discovery, and Reboot. The main content area is divided into several sections:

- General Settings:** Includes a checked 'Circular Buffer' option and a 'Sample Time (sec.):' field set to 60.
- Timed Logging:** Features fields for 'Start Date: (dd/mm/yy)' (30/08/17), 'Start Time: (hh:mm)' (14:15), and 'Stop Date: (dd/mm/yy)' (30/08/17). It also shows 'Length (days+hh:mm): 0days+00:01' and 'Records: 0'.
- Manual Logging:** Shows 'Max Length (days+hh:mm): 572days+14:04 (Circ. Buf.)' and buttons for 'Start Logging' and 'Stop Logging'. A magnifying glass highlights a 'Download CSV' button.
- Current Status:** Displays 'Clock: 16/01/19 14:50', 'Logging stopped', and 'Logging time: (days+hh:mm): 0days+00:00'. It also shows 'No of Points: 0 ok' and 'Min. sample time (sec.): 2'.
- Device Information:** A note says 'Note: Click on' followed by two device entries: '1 - Q52... / M52H Device 1' and '2 - Q52... / M Device 2', both with 'Modbus Add: 1' and 'Fw. Rev. 3.17'.

On the right side of the interface, there is a data table and a 3D line graph showing multiple data series over time.

RECORD

- Registrazione automatica o manuale delle misure selezionate
- Funzione buffer circolare
- Selezione immediata delle grandezze da registrare
- Misure di fase: L1, L2, L3 e sistema : Sys
- Automatic and manual recording of the selected measures
- Circular buffer function
- Immediate selection of variables to be recorded
- L1, L2, L3: phase measurements and Sys: system measurements

Ethernet Gateway

Device: Main Switchboard

Submit Deselect all Select all

	L1	L2	L3	System
V L-N	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
V L-L	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
I L	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
P	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Q	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
S	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
P.F.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cos PH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
THDa V	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
THDa I	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
P avg				<input checked="" type="checkbox"/>
Max P avg				<input checked="" type="checkbox"/>
I avg	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
I Max avg	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Wh +				<input checked="" type="checkbox"/>
Wh -				<input checked="" type="checkbox"/>
VArh +				<input checked="" type="checkbox"/>
VArh -				<input checked="" type="checkbox"/>
I N				<input checked="" type="checkbox"/>
F				<input checked="" type="checkbox"/>
Phase sequence				<input checked="" type="checkbox"/>
T				<input checked="" type="checkbox"/>