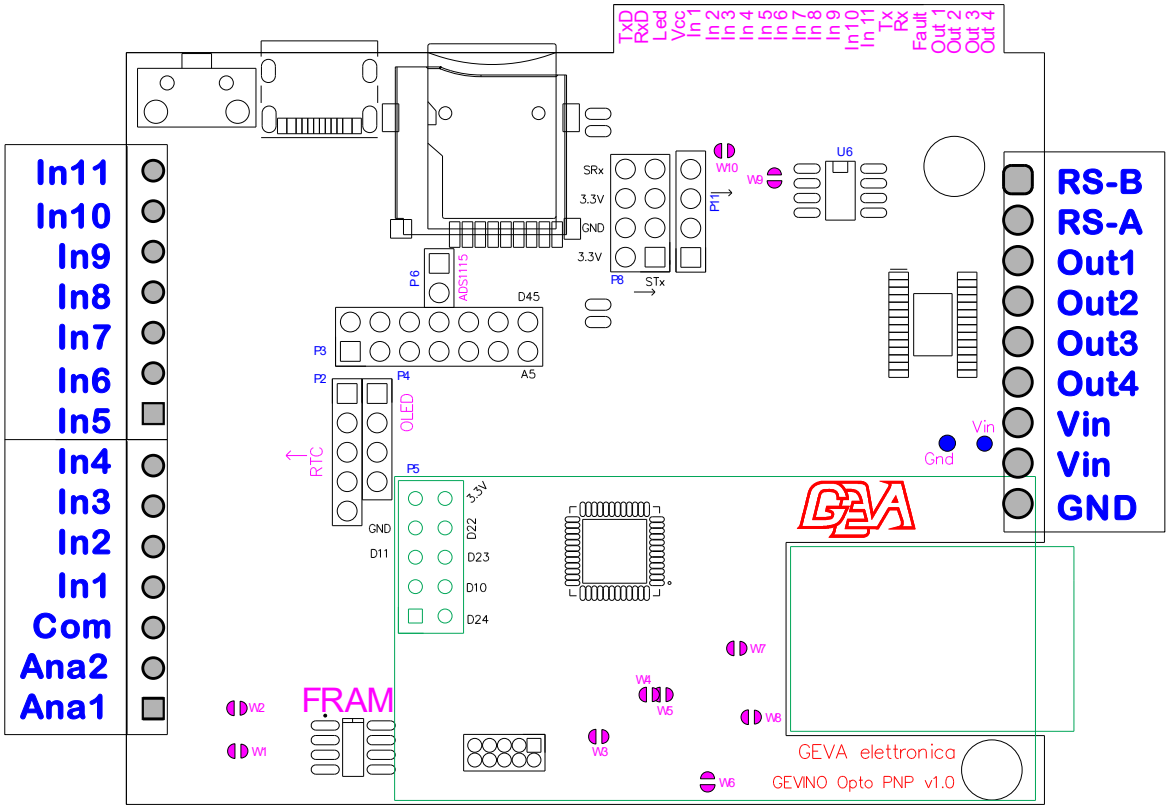
GEVA elettronica Italy
shop.gevaelettronica.it
email@gevaelettronica.it
https://www.facebook.com/GEVAelettronica

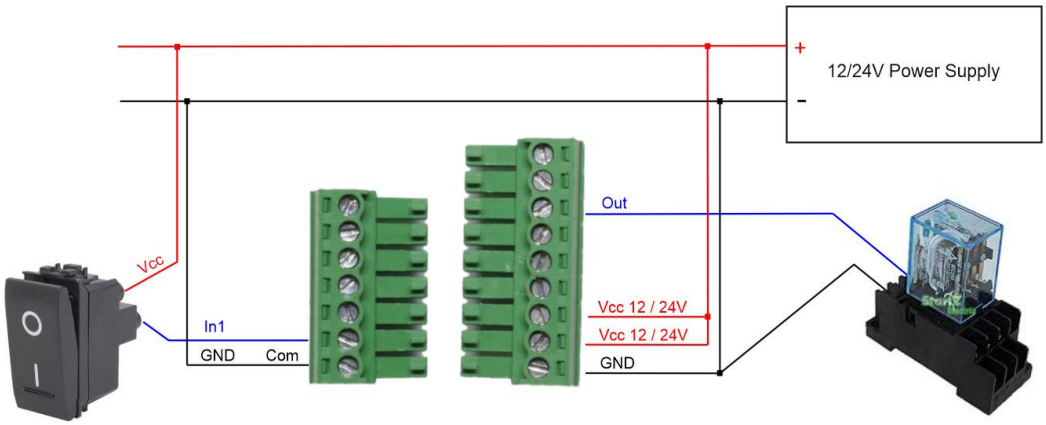
MANUAL of
GEVINO alarm
Firmware V10.0

Manual v33 20/11/2025



Hardware PNP





Specs / Specifiche PNP

- Vcc from 7 to 40V
- 4 Out PNP 2.5A, short circuit protection. (Fault Red Led on front, also readable losing one input)
- 11 Optoisolated Input, High level 7 to 40V, -7 to -40V, Low level -2.5 to +2.5V, DC or AC.
- -40°C +85°C Working temperature
- SMA connector for GSM antenna, magnetic antenna included.
- Customisable in functions, has PLC capability.
- SMS output control
- Expandable up to 3000 inputs by adding RS485 expansion modules.
- Pressing the # key during the call interrupts all subsequent calls and callbacks, until the alarm goes away and returns.
- A log.txt file is created on the SD, readable via USB, Telnet, or by removing the SD

Modem 2G

SIM800L GSM Sim Module	Quad-band 850/900/1800/1900MHz
GPRS multi-slot class 12/10	GPRS mobile station class B
Meet the GSM 2/2 Standard	

Modem 4G global

A7672G/E	GSM Sim module
LTE-FDD	B1/B2/B3/B4/B5/B7/B8/B12/B13/B17/B18/B19/B20/B25/B26/B28/B66
LTE-TDD	B38/B39/B40/B41
GSM	GSM/GPRS/EDGE 850/900/1800/1900 Mhz

Mobile Operator

Attention, all SIM Card Mobile Things are not enabled for voice traffic. Only SMS and data.

Usage

Remove the PIN from the SIM
The configuration is on the SD card.
In the GEVINO Alarm version with Ethernet you can edit the configuration file via FTP with FileZilla, and upload the Wav.

There are 24 wav files.
.wav, 24Khz, PCM Signed 16bit, Mono.

in1_on.wav
in1_off.wav

You can create your own audio on the sites:
https://www.openai.fm/
https://aistudio.google.com/generate-speech
https://notevibes.com/cabinet.php
Save them as WAVs with the file name as described above and must match the input.

Pressing the # key during the call interrupts all subsequent calls and callbacks until the alarm goes off and returns.

Led

LED Yellow = Flashes when registered on the mobile network. Fixed on during the call.
TxD Red Led = Fixed On for good communication modbus with the expansion
Flashing if any expansion does not answer, fixed off if no expansion responds.
RxD Green Led = Night and holidays Timer, Led On when enabled to call.

Expansion Led

LED Yellow = Flashes if I communicate OK, switch to every communication.

Out

The outputs can be controlled by SMS sent to the device.
Out1 of Gevino NPN cannot be used.
Out2 can be configured to flash when Gevino Alarm works correctly, And the expansions network is free of errors.
Out3 can be configured to fixed on If registered on the GSM network
Out4 can be configured fixed On when alarms are present.

Log su SD

A file named log.txt is created on the SD card, if a key is declared in the ini file:
`LogEnable = 1`
By adding a key, you can obtain a detailed log for debugging problems.
`LogDebug = 1`
Do not leave this enabled at all times.

The first few lines when switching on will have a date and time of 0 until they are downloaded correctly from the NTP server.

Log.txt

```
03-01-2023 16:21  Boot
03-01-2023 18:15  Unregistered SIM
03-01-2023 18:15  Registered SIM
03-01-2023 18:15  Telnet Connection
03-01-2023 18:15  Telnet Disconnection
03-01-2023 18:15  FTP Connection
03-01-2023 18:15  FTP Disconnection
03-01-2023 18:15  ETH Link On
03-01-2023 18:15  Firmware update
03-01-2023 18:15  Alarm On 10
03-01-2023 18:15  Alarm Off 10
03-01-2023 18:15  In1onSMSnum1  3345xxxxxx
03-01-2023 18:15  NO CARRIER  = Non raggiungibile
03-01-2023 18:15  BUSY = Occupato
03-01-2023 18:15  REJECT = Chiamata rifiutata
03-01-2023 18:15  NO ANSWER = Nessuna risposta
03-01-2023 18:15  Error on audio file
03-01-2023 18:15  # Stop Command received
03-01-2023 18:15  SMS Received
03-01-2023 18:15  Out1 set
```

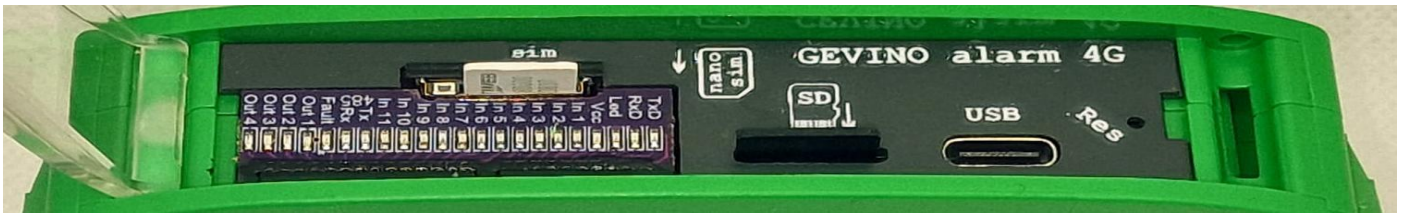
USB & Telnet Command:

Connecting via USB or telnet provides advanced debugging, such as log debug.
Command:
ini -> Print the file config.ini
log -> Print the file Log.txt
dlog -> Delete all the Log file
mlog -> Move the Log.txt fine on Log2.txt (Log2.txt on Log3.txt, etc. up to 20)

2G Sim – SD Insertion



4G global Sim – SD Insertion



SMS Command

+key

Adds or corrects a key
If added, it is at the end of the file
Replies ok or fail
example: +In1onCALLnum1 = +3933457

-key

Delete a Key
Replies ok or fail
example: -In1onCALLnum1

Enable1 .. 12

Enable 1 .. 12 input alarm
Replies ok or fail

Disable1 .. 12

Disable 1 .. 12 input alarm
Replies ok or fail

Status

Responds to GSM signal strength and list of disabled inputs

Reboot

Restart the SD.
Only need for not:
Telephone number
Alarm messages.

Configuration Files

Indispensable

`enableMailOn = 0`	Sending e-mail when alarm is triggered
`enableMailOff = 0`	Sending e-mail when finished
`TimeRecall = 0`	Minutes of recall cycle if On alarms, if 0 does not recall
`CntRecall = 99`	Number of times of recall, if 0 there is no limit
`tMax = 10`	Maximum ringing time in Seconds
`TimeZone = 1`	Time zone, for log and clock, change for legal/solar time.
`WinterTime = 1`	Winter time, does not change automatically
`LogEnable = 1`	Enable logging in the log.txt file.
`LogDebug = 0`	Log più approfondito per risoluzione problemi
`ModemType = 3`	Modem type 0= access only, 1=2G SIM800, 2=4G A7670E, 3=4G global A7672G 4=4G USA SIM
`HwType = 2`	Board type, 1 = GEVINO NPN, 2 = GEVINO PNP, 3 = GEVINO Civile.
`APN = apn.fastweb.it`	Mandatory if “LogDisable = 0” o “LogDebug = 1” o “EnableTimer = 1” o “EnableHoliday = 1” o “EnableSMSautotest = 1” o “enableMailOn = 1” o “enableMailOff = 1”
`trigger1 = 1`	Indicates whether the alarm is ON when closing or opening the input
`trigger2 = 1`	It must be continuous numbering and not skip any numbers, even if some alarms are not used. Eliminare tutti se si usa solo Modbus-TCP

Delay to the alarm

Only the 12 inputs on Alarm can have a delay in the alarm intervention (ex fridge door) from 1 to 65000 seconds.
In order not to be delayed, you can put the key at 0 or remove key.

```
# Delay in seconds before the alarm call starts
# Only for the first 12 entrances, max 65000
DelayIn1 = 0
DelayIn2 = 0
DelayIn3 = 0
DelayIn4 = 0
DelayIn5 = 0
DelayIn6 = 0
DelayIn7 = 0
DelayIn8 = 0
DelayIn9 = 0
DelayIn10 = 0
DelayIn11 = 0
DelayIn12 = 0
```

Nigh

It is possible to enable calls with a 7 day programmer

Alarms only outside working hours
Put at 0 and remove the days if not requested
Two digit : Two digit
Off less than On

```
EnableTimer = 0
EnableHoliday = 0
MondayOff = 08:00
MondayOn = 18:00
TuesdayOff = 08:00
TuesdayOn = 18:00
WednesdayOff = 08:00
WednesdayOn = 18:00
ThursdayOff = 08:00
ThursdayOn = 18:00
FridayOff = 08:00
FridayOn = 18:00
SaturdayOff = 08:00
SaturdayOn = 12:30
SundayOff = 00:00
SundayOn = 00:00
```

Autotest

It is possible to enable calls with a 7-day scheduler

`EnableSMSautotest = 1`	Send a text message each time the timer goes On, put major Off.
`SMSnum = +393345787267`	Number to which the SMS is sent
`SMSdesc = GEVINO alarm`	Description sent at the beginning of the SMS

Holidays (Not working at the moment)

By enabling holidays, it is forced that the call is active during the Italian holidays reported by the site

```
EnableHoliday = 1
```

https://date.nager.at/

Email Sending

2G modem, sends email only without encryption, port 25. Public servers do not work (gmail, outlook, ecc). 4G modem, sends emails in STARTTLS only, port 587

```
# Sending emails at the alarm intervention and / or at the end
enableMailOn = 0
enableMailOff = 0

# Parameters for Email Sending
eMailServer = Outgoing SMTP server
eMailUsr = Username
eMailPwd = Password
eMailSender = allarme@geva.it

# Indirizzi destinatari
# eMail + numero sequenziale = email destinatario
eMail1 = 123@hotmail.com

# Messagi email di Inizio allarme
# In + Numero ingresso + EMAILmsgOn = messaggio   (massimo 160 caratteri)
In1EMAILmsgOn = Allarme su ingresso 1

# Messagi email di Fine allarme
# In + Numero ingresso + EMAILmsgOff = messaggio   (massimo 160 caratteri)
In1EMAILmsgOff = Allarme terminato su ingresso 1
```

File "config.ini" on the SD

The consecutive sequential numbers must not jump or repeat number.
Put a dot to comment

```
# 1 = On 0 = Off
# Sending emails at the alarm intervention and / or at the end
enableMailOn = 0
enableMailOff = 0

# Minutes ReCall Cycle If On Alarms  ---- NOT on modbbus  alarm
# if 0 does not ReCall
TimeRecall = 0

# Number of times recall  ---- NOT on modbbus  alarm
# If 0 there is no limit
CntRecall = 99

# Maximum call time, seconds
tMax = 10

# Time zone, for log and clock
TimeZone = 1
# Solar time (= 1) or daylight saving time (= 0)
WinterTime = 1

# Enable logs in the log.txt file
LogEnable = 1

# Detailed logs in the log.txt file for Debug
LogDebug = 0

# Type of card, 1 = GEVINO NPN, 2 = GEVINO PNP, 3 = GEVINO Civile.
HwType = 2

# Modem type 1=2G SIM800, 2=4G A7670E
ModemType = 1

# Mandatory to save the log, use timers or email.
# To not use data disable "LogDisable = 1"
APN = apn.fastweb.it

# SMS Numbers
# In + Input number + on or off + SMSnum + sequential number = phone number
In1onSMSnum1 = +39…
In1onSMSnum2 = +39…
In2onSMSnum1 = +39…
In2onSMSnum2 = +39…

# Numbers for vocal calls
# In + Input number + on or off + CALLnum + sequential number = phone number
In1onCALLnum1 = +39…

# Parameters for Email Sending and clock
eMailServer = Outgoing SMTP server
eMailUsr = Username
eMailPwd = Password
eMailSender = allarme@gevaelettronica.it

# Email Receiver
# eMail + sequential number = email receiver
eMail1 = x-giorgio-x@hotmail.com

# Trigger definition (the alarm starts when the status of the input = trigger 1/0)
# trigger + sequential number = state that causes intervention
# Over 12 inputs, it enables expansions on the RS485 bus
```

```
# Do not skip or repeat any numbers
trigger1 = 1

# Delay in seconds before the alarm call starts
# Only for the first 12 inputs, Max 65000
DelayIn1 = 0

# Sending the SMS Status on each On of the timer.
EnableSMSautotest = 0
SMSnum = +39334
SMSdesc = GEVINO alarm

# Alarms only outside working hours
# Put at 0 and remove the days if not requested
# Two digit : two digit
# Off inferione a On
EnableTimer = 0
EnableHoliday = 0
MondayOff = 08:00
MondayOn = 18:00
TuesdayOff = 08:00
TuesdayOn = 18:00
WednesdayOff = 08:00
WednesdayOn = 18:00
ThursdayOff = 08:00
ThursdayOn = 18:00
FridayOff = 08:00
FridayOn = 18:00
SaturdayOff = 08:00
SaturdayOn = 12:30
SundayOff = 00:00
SundayOn = 00:00

# Start Alarm SMS messages
# In + Input number + SMSmsgOn  =  Message (maximum 160 characters)
In1SMSmsgOn = Allarme su ingresso 1

# End Alarm SMS messages
# In + Input number + SMSmsgOff  = Message (maximum 160 characters)
In1SMSmsgOff = Allarme terminato su ingresso 1

# Start Alarm email messages
# In + Input number + EMAILmsgOn = Message (maximum 160 characters)
In1EMAILmsgOn = Allarme su ingresso 1

# End Alarm email messages
# In + Input number + EMAILmsgOff = Message (maximum 160 characters)
In1EMAILmsgOff = Allarme terminato su ingresso 1

## Out functions
# Flashes if I live and connected to the network
LifeOut2 = 1
# On If registered on the GSM network
RegOut3 = 1
# Out4 On if an alarm is present
AlarmOut4 = 1

# Exit excitation seconds on SMS command
# If zero or missing row not enabled.
# GEVINO Civile has 7 relays, NPN has 6 output, PNP has 4 output
SecCom1 = 3
SecCom2 = 3
SecCom3 = 3
SecCom4 = 3
SecCom5 = 3
```

```
SecCom6 = 3
SecCom7 = 3

# Output control string if enabled by the Sec row
StrSetCom1 = TAG1
StrSetCom2 = TAG2
StrSetCom3 = TAG3
StrSetCom4 = TAG4
StrSetCom5 = TAG5
StrSetCom6 = TAG6
StrSetCom7 = TAG7

# Ethernet
DHCP = 1
DefaultIP = 169.254.196.10
Subnet = 255.255.255.0
Username = gevino
Password = gevino
# Connection to the server panel.gevaelettronica.it
EnableWS = 1

------------------------------
```

Sim Data

If these keys are disabled, the program will not open mobile data:

```
enableMailOn = 0
enableMailOff = 0
LogENANBle = 0
LogDebug = 0
EnableTimer = 0
EnableHoliday = 0
EnableSMSautotest = 1
```

On the other hand, if mobile data is open, you need to have a sim with mobile data enabled and you need to set the correct APN.

Ethernet (optional) with FTP server

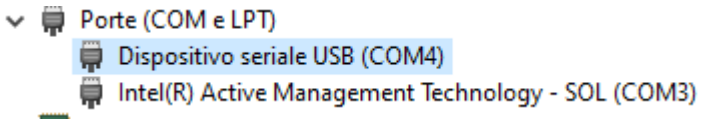
You can upload, download, edit SD files using an FTP Client, via Ethernet.
If upload firmware update as "firmware.bin", when the connection is closed the gevino updates it`s firmware.
If the device does not find a DHCP server takes the defaul IP 169.254.196.10
Host Name è “GEVINO”
Utente gevino Password gevino - Modificabili nel file .ini
Important.

- **Close connection when upload is over.**
- **When connection is open do not start alarms and if there is an alarm in progress the FTP does not work.**
- **If the Ethernet parameters are changed, you must restart or reset the Gevino alarm, the others are updated at connection closure.**

Ethernet (Optional) debug Telnet, port 23

Connection via telnet is debugging during operation.

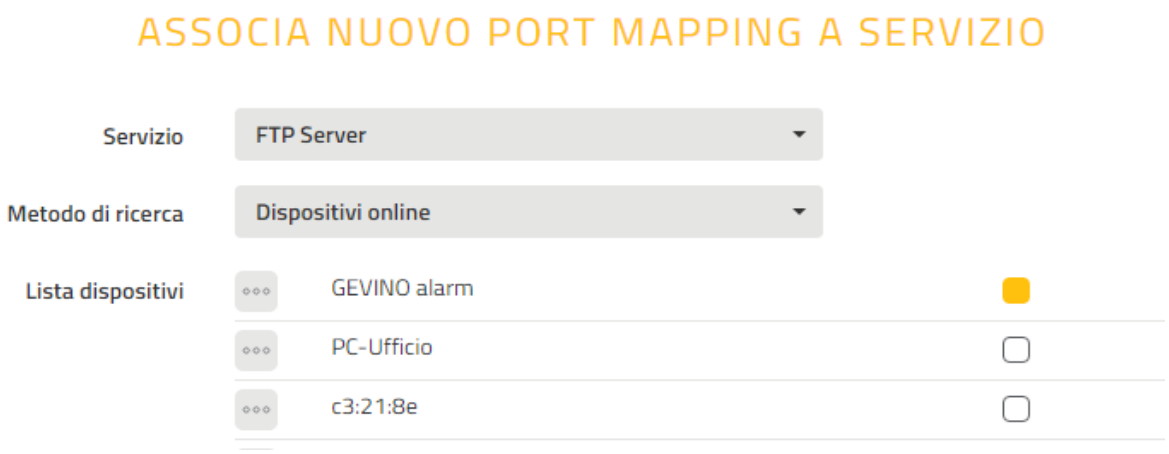
USB debug

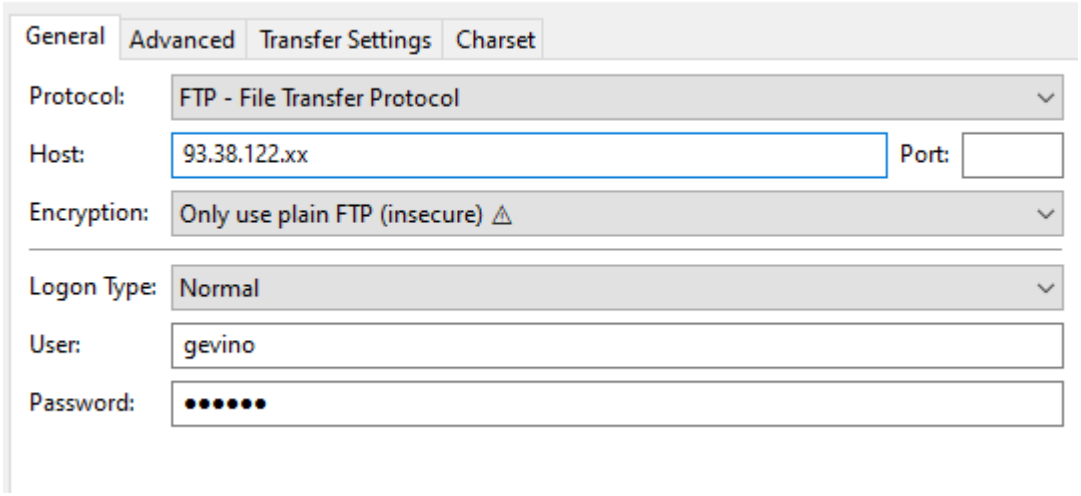


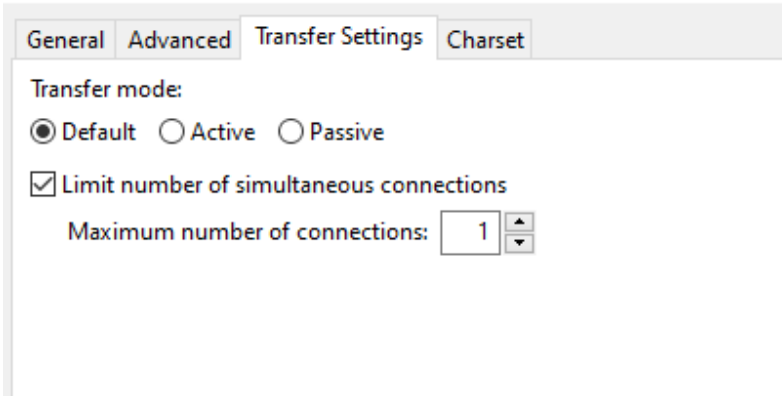
Open the serial port generated by USB with a Tera Term type terminal in order to recognise debug.

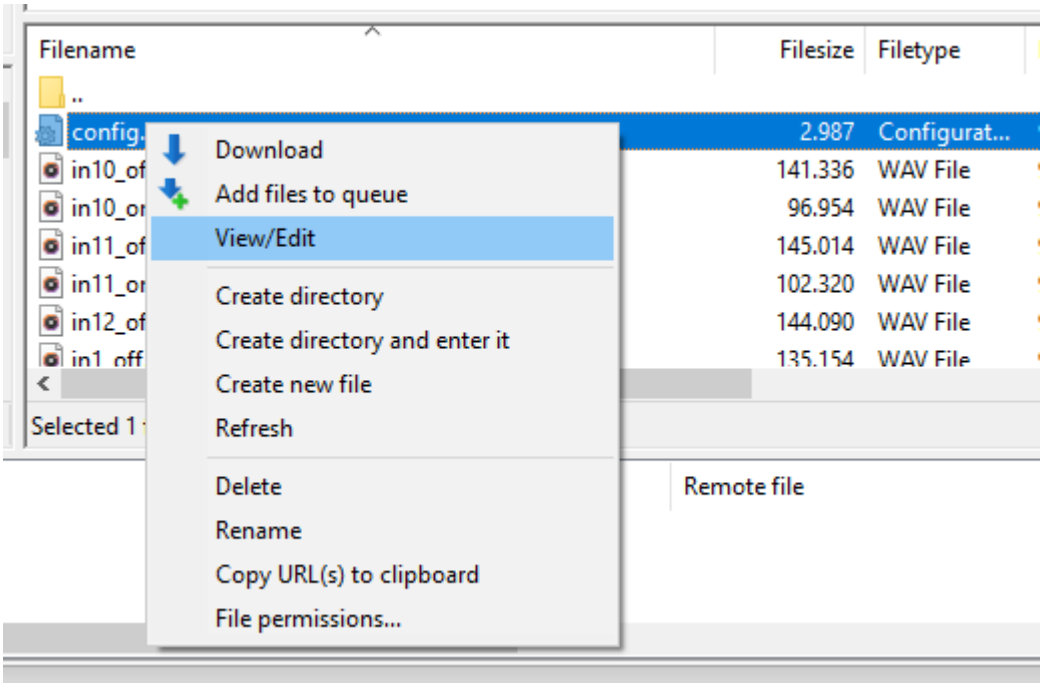
Attention, The GSM modem has a tendency to crash USB ports or hubs.

Example Router Port Mapping On Fastweb FastGate




General
Advanced
Transfer Settings
Charset
Protocol:
FTP - File Transfer Protocol
Host:
93.38.122.xx
Port:
Encryption:
Only use plain FTP (insecure) ⚠
Logon Type:
Normal
User:
gevino
Password:
••••••


General
Advanced
Transfer Settings
Charset
Transfer mode:
Default
Active
Passive
Limit number of simultaneous connections
Maximum number of connections:
1


Filename
Filesize
Filetype
..
config.
2.987
Configurat...
in10_of
141.336
WAV File
in10_or
96.954
WAV File
in11_of
145.014
WAV File
in11_or
102.320
WAV File
in12_of
144.090
WAV File
in1_off
135.154
WAV File
Selected 1
Download
Add files to queue
View/Edit
Create directory
Create directory and enter it
Create new file
Refresh
Delete
Rename
Copy URL(s) to clipboard
File permissions...
Remote file

Other FTP clients

Under Windows
FTP Rush, Filezilla, WinSCP, NcFTP (and ncftpget, ncftpput), Firefox, command line ftp.exe

Under Ubuntu
gFTP, Filezilla, NcFTP(and ncftpget, ncftpput), lftp, ftp, Firefox

Under Android
AndFTP, FTP Express, Firefox

With a second Arduino
using the sketch of SurferTim at http://playground.arduino.cc/Code/FTP

When available in client, you have to select single data connection mode.

FTP Rush
To force FTP Rush to use the primary connection for data transfers:
Go to Tools/Site Manager, right-select you site and Site Properties
In General, check "Single connection mode"

WinSCP
To force WinSCP to use the primary connection for data transfers:
In Login, go to Tools/Preferences.../Transfer/Background,
set "Maximum number of transfers at the same time" to 1.

gFTP
To force gFTP to use the primary connection for data transfers:
Go to FTP/Preferences...,
In General, check "One transfer at a time"

FileZilla
To force FileZilla to use the primary connection for data transfers:
Go to File/Site Manager then select your site.
In Transfer Settings, check "Limit number of simultaneous connections" and set the maximum to 1

Firefox
Only used to download files.
Enter address ftp://arduino:Due@192.168.1.xxx
You can download any file from the server.
You have to quit Firefox to close the connection with the server.

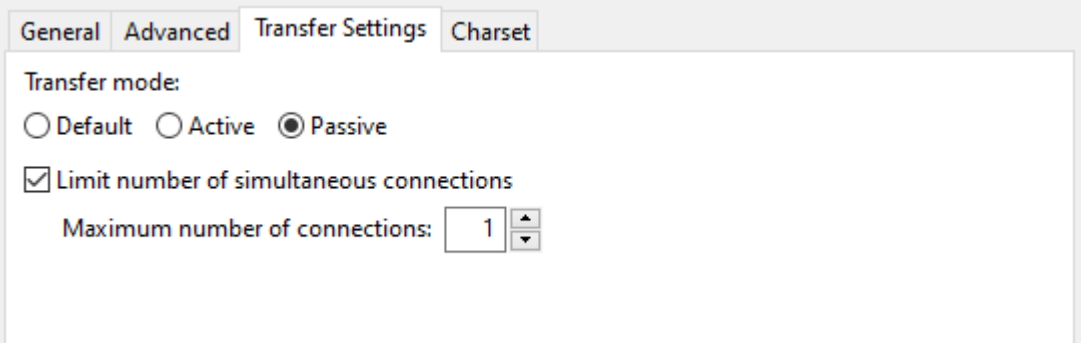
NcFTP
This client works on the command line and is perfect for batch processing.
For example:
ncftpget -d stdout -u arduino -p test 192.168.1.xxx . /MyDir/MyFile
to download a file to the current directory

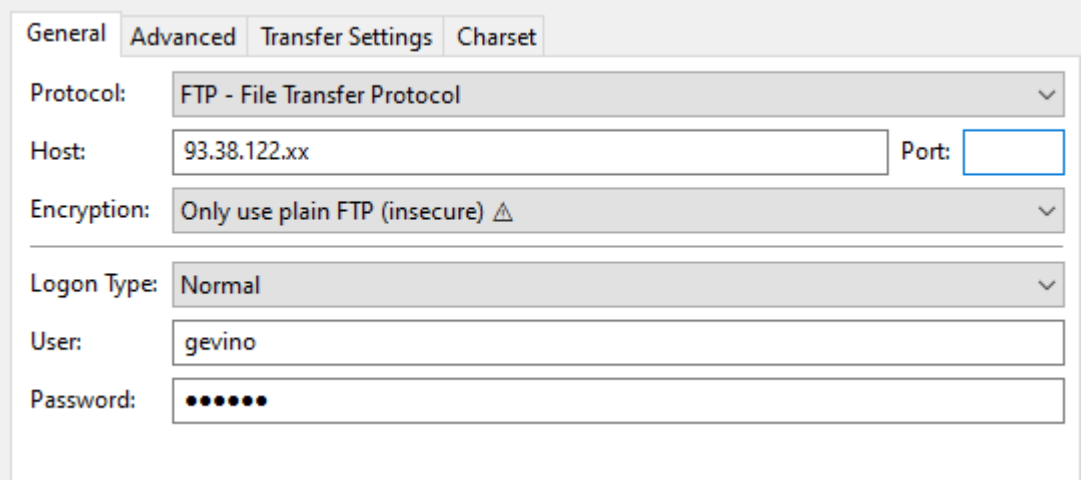
Port Opening

Although the opening of the port is not the best method, some router does not open the door 21.

Open port 21 and 55600 TCP

In Client use Passive FTP





IO Expansions

Connect among all the expansions of the Master, the RSA with the RSA, and the RSB with the RSB.

Put two 120R resistances at the extremes of the cable

The distance limit is 1 km

For distances greater than one metre use Twisted cable at 120R for RS485 networks

If the slave is not already addressed, connect the USB to a PC, open a Tera Term, and send the command addr=x
Where x is the address, 1 for the inputs from 13 to 24, 2 for the entrances from 25 to 36, etc.
If you are wrong to write it cannot be canceled, but just send, then sent right one.

HTML pages

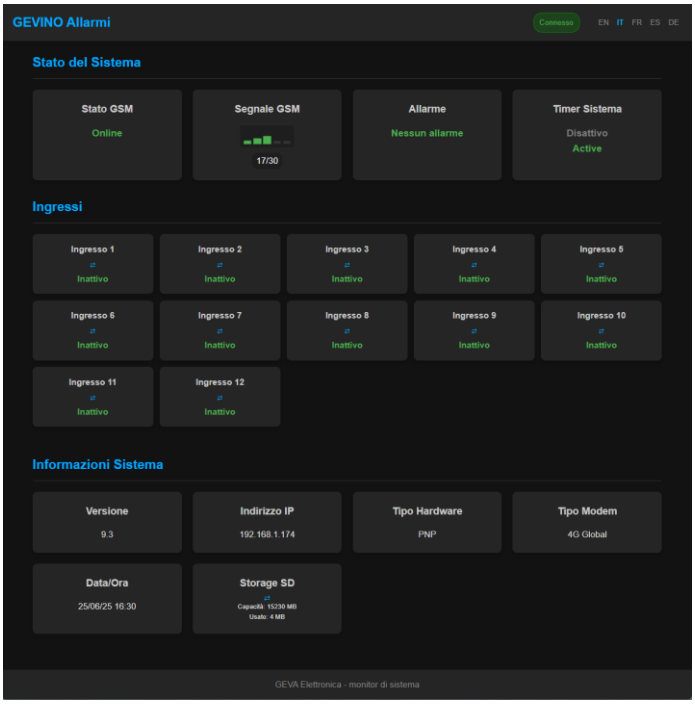
By opening the IP address assigned to the Ethernet connection, you can log in using the same password as the FTP access (stored on the SD card):
http://192.168.1.xxx
From that page, you can view:

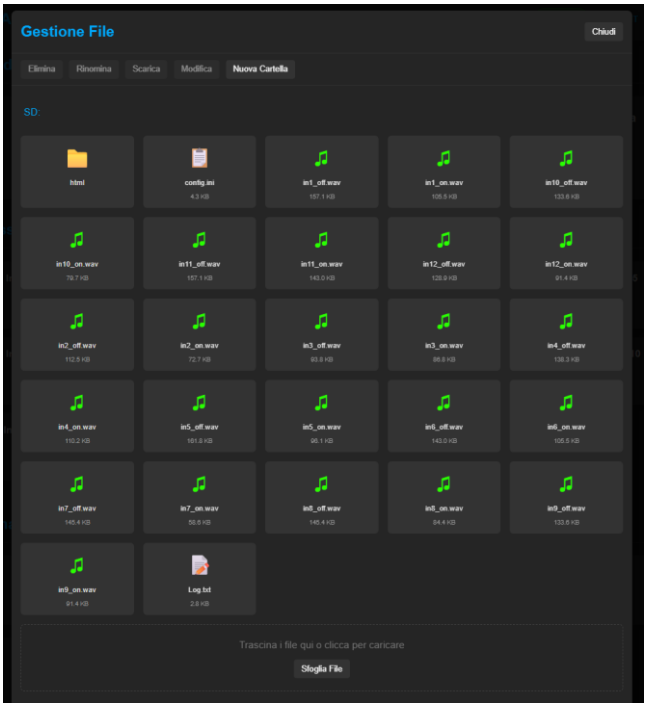
System Status
If the modem is connected to the network, you will see the radio signal strength, alarm states, and the system timer. You can force an alarm to start.

Inputs
You can check if the inputs are in alarm state or disabled. You can enable or disable them, just like via SMS.

System Information
Clicking on **Storage SD** opens a file manager that allows you to edit, upload, download, delete, rename, etc.

If you change or load the **config.ini** or **firmware.bin** file, a reboot of the GEVINO alarm will be done when closing the file manager to use the new configurations or firmware.





ModBus TCP-IP (Only with Ethernet module Optional)

Port 502
In the config.ini set:
. Ethernet

```
DHCP = 1
DefaultIP = 169.254.196.10
Subnet = 255.255.255.0
```

Holding Register 0 (or 1)
Writing this activates the alarm corresponding to the input with the same number, the configuration is as in config.ini
In1onCALLnum1 = +39334578 Writing 1 start alarm of Input
It can initiate calls and/or text messages and/or emails.
It is set to zero at the end of the operation, pressing #.
It does not autonomously redial after the set time, only applies to physical inputs.

Holding Register 1 (or 2)
The bits are also set for alarms generated by the inputs.
They are reset for each new telephone number, if reset when read to 1, you can tell if they refer to the next number.
Bit 0 = He is calling
Bit 1 = Recipient is busy
Bit 2 = It's ringing
Bit 3 = Call rejected
Bit 4 = Answering the Call
Bit 5 = Unreachable
Bit 6 = No reply
Bit 7 = the # was pressed
Bit 8 = Sending SMS
Bit 9 = Sending email

Holding Register 2

Bit 0 = registered on the mobile network

Holding Register 3

During audio playback, it does not respond to the modbus, so put a longer timeout.

Access Control:

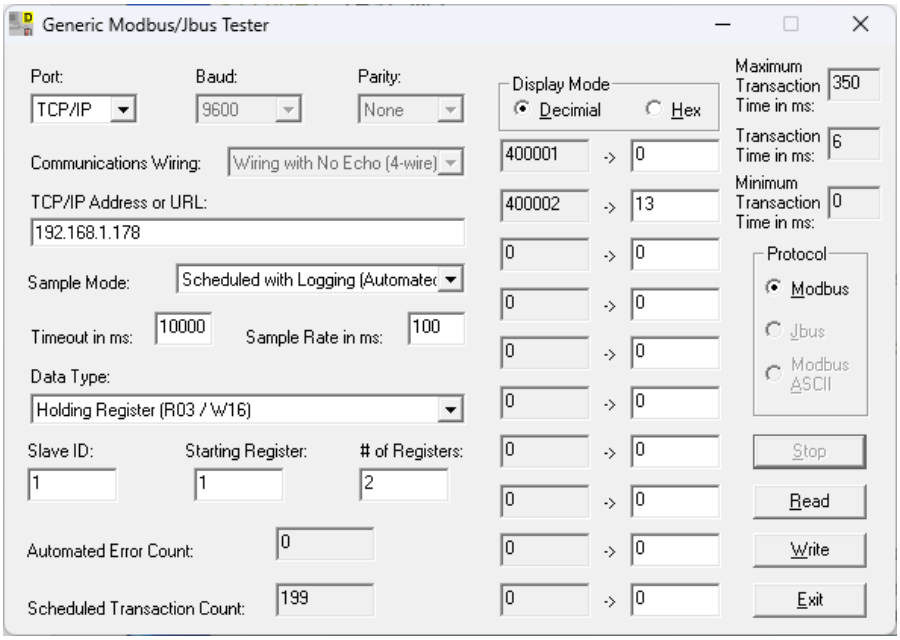
Holding Register 4 .. 5 (4 bytes)
Card code passed over the reader.

Holding Register 4 .. 7 (8 bytes)
Numeric code entered on the reader

Holding Register 8 (2 bytes)
Low -> Door number of the above codes.
High -> 1 = card accepted, 2 = card rejected, 3 = PIN accepted, 4 = PIN rejected.

Holding Register 9
Low -> Door status, 1 bit for each address for the first 8 doors.
High -> Counter of accepted or rejected card or PIN events.

During audio playback, it does not respond to Modbus, so set a longer timeout.



FAQ:

- Ethernet: GEVINO has HTML pages and FTP to access the SD, Telnet for debugging, Modbus to start one alarm at a time or read status.
- All configuration and entries are on the SD, it cannot be changed via ModBus, it can only be changed via FTP, sending SMS or putting the SD in a PC.
- Le voci riprodotte sono file WAV, è si possono creare gratuitamente su dei siti liberi.
- The texts of SMS or e-mails are written on the SD, as are the numbers to be called and all other rules.
- There is no limit on the alarms that can be configured on the SD and controlled via ModBus
- Each status, of each individual input, can be configured as desired, with dedicated functions, voices, numbers and texts.

Troubleshooting:

Yellow LED not flashing:

Putting the SIM-specific APN.
Check that the sim is enabled for data traffic.
Put the SIM in a phone and test whether it sends SMS, makes calls, and connects to the internet.

Input LED does not light up:

Put the input common to VCC or GND, bring the opposite voltage to the input.

From v8.5, at startup you can read the following information, via USB console and in the log file:

```
ERROR - SIM not inserted
ERROR - Remove PIN
Signal xx of 30     (Intensità del segnale GSM in scala da 0 a 30)
```

LED Summary:

Led Out2 = Yellov Led = flashes when everything is OK.
Led Out3 = registered on the GSM network
Led Out4 = alarms present.

TxD Red LED Fixed = Good ModBus communication with Expansion
RxD Green Led = Enabled (Night and Holiday)

Support:

Set `LogDebug = 1`
Delete `log.txt on the SD`
Make a complete operating cycle.
Send by email `log.txt e config.ini at email@gevaelettronica.it`
`In normal use hold LogDebug = 0`

TR20 reader addressing:
Switch on the reader while holding down the reset button, wait for the red LED to remain steady, then release the button.
Enter 5 digits: (For panels without numbers, place the printout with the numbers underneath)

Initial three-digit reader address, 001 (taking into account expansions)
Baudrate = 6, 38400 Baud
Keyb active = 1, or only RFID = 0

Configuring the config.ini file

```
ModemType = 0
# If set to zero, it disables the modem functions and takes the time from the Ethernet, but without automatic daylight saving time change.
```

access.ini file configuration

```
EnableAccess = 1
StartAddress = 1
NumModules = 1
```
KeysNum = 5

Relais1 = 2
When the door opening relay on door 1 closes, the relay on door 2 is also activated.

