



Vemer V3IS00796-010-202210 GPS Module For External Use User Manual

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Vemer V3IS00796-010-202210 GPS Module For External Use



Product Information

- **Model:** GEO-1
- **Description:** GPS module for external use
- **Code:** VE747200

Technical Characteristics

- Key to force sending data to the devices
- Led for signaling device status
- **Figure 1:** Diagram of the device
- **Figure 2:** Location of the key for forcing data transmission (requires removing the cover)

Product Usage Instructions

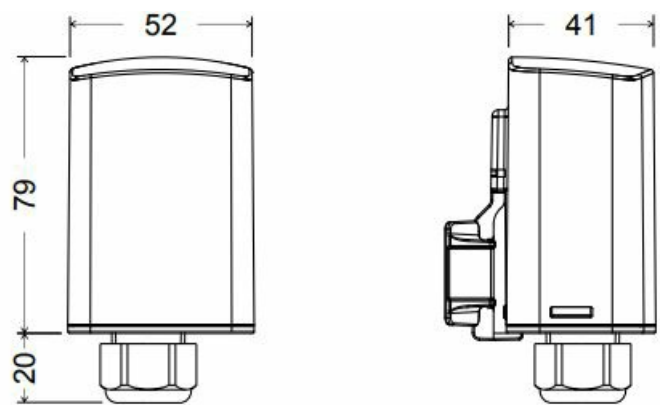
1. Read all the instructions carefully.
2. Ensure proper installation and connection of the GEO-1 GPS module.
3. Power on the device.
4. Wait for the power-on sequence to complete.
5. The GEO-1 will acquire data on time, date, latitude, longitude, and number of satellites received approximately every 30 seconds.
6. The acquired data will be sent to the bus RS-485 and connected devices every 30 minutes.
7. The green LED will flash to indicate the number of received satellites. A higher number of satellites received indicates a better reception of information.
8. To force sending data to the bus RS-485 at any time, remove the cover and press the key located as shown in

Figure 2.

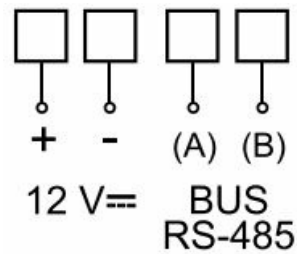
Safety Warnings and Disposal

- The product must not be included with other general waste at the end of its working life.
- The worn product should be taken to a sorted waste center or returned to the retailer when purchasing a new one.
- Products for disposal can be consigned free of charge (without any new purchase obligation) to retailers with a sales area of at least 400 m2 if they measure less than 25 cm.
- Proper disposal and recycling of the used device help avoid negative effects on the environment and people's health and promote reuse and/or recycling of construction materials.

DIMENSIONS



CONNECTION DIAGRAMS



DEVICE STATUS

When you power on the led emits two red flashes as follows:

| | | | | |
|-----|-----|-----|-----|-----|
| OFF | ON | OFF | ON | OFF |
| ... | 1 s | 1 s | 1 s | ... |

After the power on sequence, the GEO-1:

- acquires data on time, date, latitude, longitude, and number of satellites received about every 30 seconds
- sends data of time, date, latitude, and longitude to the bus RS-485 (and to the connected devices) every 30 minutes
- The flashing of the green led indicates the number of the received satellites (the higher the number of satellites received, the better the reception of the information):

| Number of satellites | Green led sequence | | |
|----------------------|--------------------|--------|-------------------|
| | ON | OFF | REPETITIONS |
| 0 – 2 | 500 ms | 500 ms | continuous |
| 3 – 5 | 100 ms | 300 ms | 3 every 5 seconds |
| 6 – 8 | 100 ms | 300 ms | 6 every 5 seconds |
| 9 – 12 | 100 ms | 300 ms | 9 every 5 seconds |

- Sending data to the bus RS-485 (and to the connected devices) is signaled by the red flashing of the LED for 3 seconds as follows:

| | | | | |
|--------|--------|--------|--------|-------|
| ON | OFF | ON | OFF | |
| 100 ms | 100 ms | 100 ms | 100 ms | |

- **Note:** at any time you can force sending data to the bus RS-485 by pressing the key (accessible by removing the cover, see figure 2).
- Failure to receive the correct data for more than 60 seconds causes an auto-reset of the device. After three fruitless recovery attempts, this condition is signaled by the red flashing of the LED as follows:

| | | | | |
|--------|--------|--------|--------|-------|
| ON | OFF | ON | OFF | |
| 500 ms | 500 ms | 500 ms | 500 ms | |

- In this case, the GEO-1 tries to restore the operation of the GPS module by continuing signaling; in case it succeeds, it will return to normal operation (flashing of the LED green color according to the number of the detected satellites).
- Failure to receive the correct data for more than 30 minutes causes an auto-reset of the device with the loading of factory settings and subsequent restart. This condition is signaled by the orange flashing of the LED for 3 seconds as follows:

| | | | | |
|--------|--------|--------|--------|-------|
| ON | OFF | ON | OFF | |
| 300 ms | 300 ms | 300 ms | 300 ms | |

User Manual GPS MODULE FOR EXTERNAL USE Read all the instructions carefully

GEO-1 is a GPS module that allows you to capture information of date, time and position from satellites. This information may be shared with Vemer devices designed to interface with GEO-1, so as to ensure a synchronization always perfect.

Code Model Description

- VE747200 GEO-1 GPS module for external use

SAFETY WARNINGS

During product installation and operation it is necessary to observe the following instructions:

1. The product must be installed by a qualified person, in strict compliance with the connection diagrams.
2. Do not power the instrument if any part of it is damaged.
3. The product must be installed and activated in compliance with current electric system standards.
4. The electrical system in the building in which the product is to be installed should have an over-current switch and a protection device.
5. Do not use the product for purposes different from the one specified.
6. In case of malfunction do not perform repairs and contact immediately the technical support.
7. The product can be used in environments with the category of overvoltage III and pollution degree 2.
8. Before accessing the connection terminals, verify that the leads are not live.
9. After installation, inaccessibility to the connection terminals without appropriate tools must be guaranteed.

TECHNICAL CHARACTERISTICS

- Power supply: 12V DC (-20% ÷ +20%)
- Absorption: 30mA max (during receiving GPS)
- Wall or pole installation
- Wiring
- Terminal block: flexible cable section: 0.75 ÷ 1.5 mm²
- Cable gland: diameter of cables with sheath: 6 ÷ 12 mm
- Protection degree: IP54
- Operating temperature: -20 ÷ 50 °C
- Storage temperature: -25 ÷ 70 °C
- Operating humidity: 20÷90% non condensing
- Key to force sending data on RS-485 line to the connected devices
- Red/green / orange led for signaling device status (Figure 1)
- Operating frequency: 1575.42MHz (GPS RX Only)

INSTALLATION

- Installation can be wall or pole (by using the adapter in the package)
- Remove the cover by leveraging the teeth on the sides of the product
- Pass the cables through the cable entry on the bottom side and connect the power and bus cables respecting the wiring diagram
- Tighten the cable gland and replace the cover.

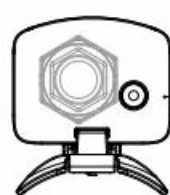


Figure 1

Led for signaling
device status

Key to force sending
data to the devices

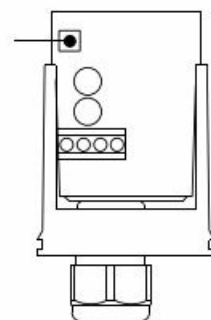


Figure 2

- information to users pursuant to Art. 14 of the directive 2012/19 / EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE)

- If the crossed-out bin symbol appears on the equipment or packaging, this means the product must not be included with other general waste at the end of its working life.
- The user must take the worn product to a sorted waste center, or return it to the retailer when purchasing a new one.
- Products for disposal can be consigned free of charge (without any new purchase obligation) to retailers with a sales area of at least 400 m2 if they measure less than 25 cm.
- An efficient sorted waste collection for the environmentally friendly disposal of the used device, or its subsequent recycling, helps avoid the potential negative effects on the environment and people's health and encourages the re-use and/or recycling of the construction materials.

REFERENCE STANDARDS

EU DECLARATION OF CONFORMITY

- Vemer declares that the device complies with the EU directive 2014/53 / EU (RED) with reference to the following standards:
- EN 61010-1
- ETSI EN 301 489-1
- ETSI EN 301 489-19
- ETSI EN 303 413
- The full text of the EU Declaration of Conformity is available on the Internet at www.vemer.it
- 32032 Feltre (BL)
- Via Camp Lonc, 16 e-mail: info@vemer.it – web site: www.vemer.it



Documents / Resources



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