Vari KNX GPS

GPS Receiver

Technical specifications and installation instructions

Item number 70387

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1. Description

The **GPS Receiver Vari KNX GPS** for the KNX building system receives the GPS signal for time and location and uses it to compute the position of the sun (azimuth and elevation).

The compact housing of the **Vari KNX GPS** accommodates the receiver, evaluation circuits and bus-coupling electronics.

Functions:

- **GPS receiver**, outputting the current time and location coordinates. The **GPS Receiver Vari KNX GPS** also computes the position of the sun (azimuth and elevation)
- **Weekly and calendar time switch**: All time switching outputs can be used as communication objects.
  The **weekly time switch** has 24 periods. Each period can be configured either as an output or as an input. If the period is an output, then the switching time is set per parameter or per communication object.
  The **calendar time switch** has 4 periods. Two on/off switching operations, which are executed daily, can be set for each period

Configuration is made using the KNX software ETS. The **product file** can be downloaded from the Elsner Elektronik website on **www.elsner-elektronik.de** in the "Service" menu.

1.0.1. Scope of delivery

- Receiver
- Stainless steel installation band for pole installation
- 4×50 mm stainless steel roundhead screws and 6×30 mm dowels for wall mounting. Use fixing materials that are suitable for the base!

1.1. Technical specification

Housing	Plastic
Colour	White / Translucent
Assembly	Surface mount
Protection category	IP 44
Dimensions	approx. 65 × 80 × 30 (W × H × D, mm)
Weight	approx. 60 g
Ambient temperature	Operation -30…+50°C, Storage -30…+70°C
Operating voltage	KNX bus voltage
Bus current	max. 20 mA
Data output	KNX +/- bus connector terminal
BCU type	Integrated microcontroller
PEI type	0

Group addresses	max. 2000
Assignments	max. 2000
Communication objects:	150

The product conforms with the provisions of EU directives.

2. Installation and start-up

2.1. Installation notes

Installation, testing, operational start-up and troubleshooting should only be performed by an electrician.

CAUTION!
Live voltage!
There are unprotected live components inside the device.

- National legal regulations are to be followed.
- Ensure that all lines to be assembled are free of voltage and take precautions against accidental switching on.
- Do not use the device if it is damaged.
- Take the device or system out of service and secure it against unintentional use, if it can be assumed, that risk-free operation is no longer guaranteed.

The device is only to be used for its intended purpose. Any improper modification or failure to follow the operating instructions voids any and all warranty and guarantee claims.

After unpacking the device, check it immediately for possible mechanical damage. If it has been damaged in transport, inform the supplier immediately.

The device may only be used as a fixed-site installation; that means only when assembled and after conclusion of all installation and operational start-up tasks and only in the surroundings designated for it.

Elsner Elektronik is not liable for any changes in norms and standards which may occur after publication of these operating instructions.

2.2. Installation location

The **GPS Receiver Vari KNX GPS** must be installed outside.

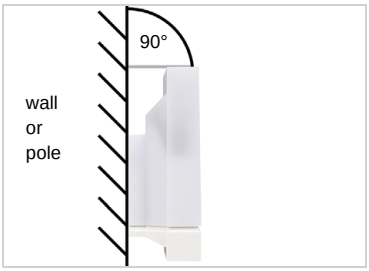


Fig. 1
The device must be attached to a vertical wall (or a pole).

Fig. 2
The device must be mounted in the horizontal (transverse) direction.

Magnetic fields, transmitters and interference fields from electrical consumers (e.g. fluorescent lamps, neon signs, switch mode power supplies etc.) can block or interfere with the reception of the GPS signal.

2.3. Device design

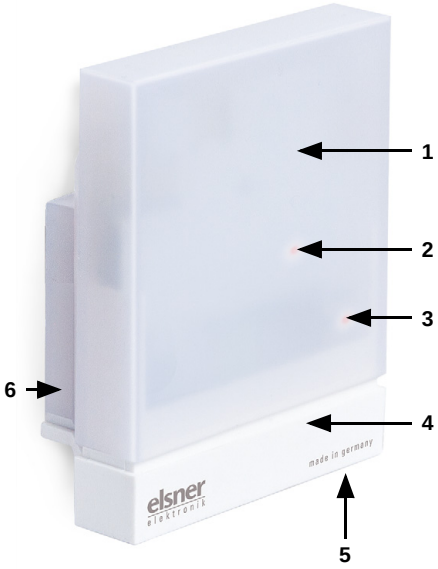


Fig. 3

1 *Semi-transparent cover (GPS receiver below)*
2 *Position of the Signal LED (under the cover). LED is freely controlled via two objects*
3 *Position of the programming LED (under the cover)*
4 *Lower part of housing*
5 *Programming key on the bottom of the housing (recessed),* see *Device design*, page 5
6 *Wall/Pole holder*

2.4. Installing the device

ATTENTION!
Even a few drops of water can damage the device electronics.
- Do not open the device if water (e.g. rain) can get into it.

2.4.1. Preparation for installation

Fig. 4
The cover and lower part of the housing are connected together. Pull both parts apart in a straight line.

2.4.2. Fitting the lower part of the housing with mounting

Now, first of all, assemble the lower part of the housing with the integrated mounting for wall or pole installation.

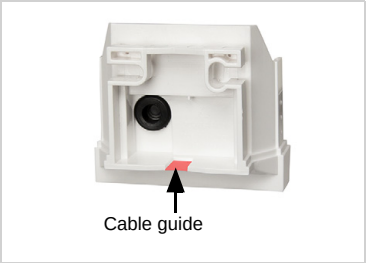
Wall installation

Use fixing materials (dowels, screws) that are suitable for the base.

Fig. 5
The device is installed with two screws. Break off the two longitudinal holes in the housing.

Fig. 6 a+b

a) If the power lead is to be hidden when installed, it must emerge from the wall in the vicinity of the rear of the housing (marked area).



b) If the power lead is to be surface-mounted, the cable guide is broken off. The lead is then fed into the device from the bottom of the housing.

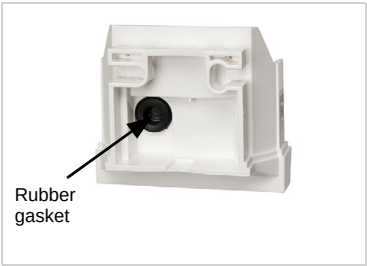


Fig. 7
Feed the power lead through the rubber gasket.

Drilling plan

ATTENTION! The print out of the data sheet doesn‘t have original size!
A separate, dimensionally correct drilling plan is included ex works and this can be used as a template.

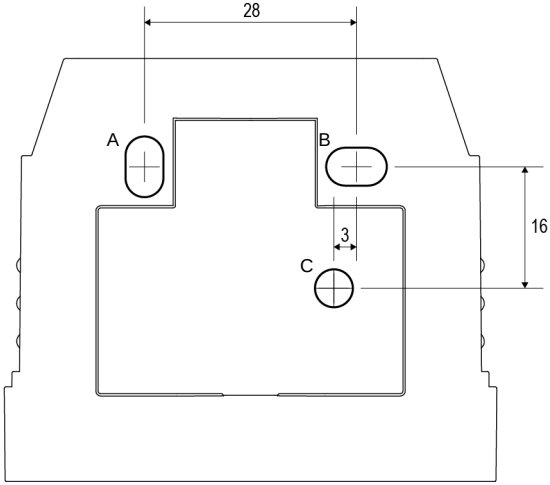


Fig. 8
Dimensions in mm. Variations are possible for technical reasons

A/B 2× longitudinal holes 8 mm × 5 mm
C Position of the cable outlet (rubber gasket) in the housing

Pole installation

The device is installed on the pole with the enclosed stainless steel mounting band.

Fig. 9
Feed the mounting band through the eyelets in the lower part of the housing.

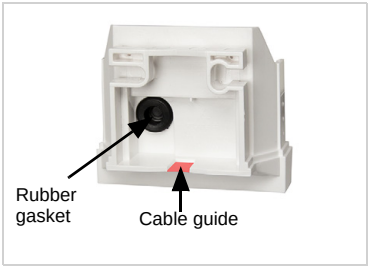


Fig. 10
Break the cable guide off.

Feed the power lead through the rubber gasket.

2.4.3. Connection

The connector is in the lower part of the housing.

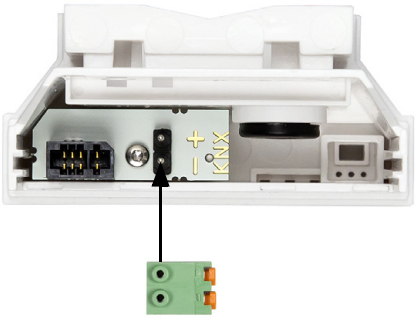
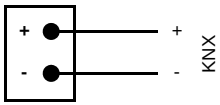


Fig. 11
Connect the device to the KNX bus via the pluggable terminal (+|-).



2.4.4. Completing the installation

Fig. 12
Put the cover on the lower part. This also makes the plug-in connection between the board in the cover and the socket in the lower part.

3. Addressing the device

The device is delivered ex works with the bus address 15.15.250. You can program a different address in the ETS by overwriting the address 15.15.250 or by teaching the device via the programming button.

The programming button can be reached through the opening on the underside of the housing; it is recessed by approx. 8 mm. Use a thin object to reach the button, e.g. a 1.5 mm² wire.

Fig. 13 a+b
1 Programming LED (under the semi-transparent cover)
2 Programming button for teaching the device

Housing from below

4. Maintenance

WARNING!
Risk of injury due to automatically moved components!
The automatic control may cause parts of the system to start up and pose a danger to humans.
- Always disconnect the system from the mains power before maintenance or cleaning.

The device should be regularly checked twice a year for soiling and cleaned if required. If there is major soiling, the function of the receiver may be limited.

ATTENTION
The device may be damaged if water penetrates the housing.
- Do not clean with high pressure cleaners or steam jets.