

## TELEM GPS Interface



TELEM-GPS-IF (based on GARMIN GPS17xHVS receiver) synchronizes PC (WINDOWS 9-8/NT/2000/XP) or controller's time. Timing accuracy - 1s for PC, 1ms for controllers. One TELEM-GPS-IF unit can synchronize 2 or more PC-s or controllers.

### Technical data

#### GPS Interface:

Interface:	RS-232, RS422, Fibre-optic (650 nm)
Transmission speed:	9600 bit/s 8N1
Input voltage:	9-33V DC
Power consumption:	50 mA @ 24VDC (with GPS receiver)
Indication LEDs:	power, TX, RX, Sec. pulse
Operating temperature:	-20...+70 C
Mounting:	indoor, DIN 32
Dimensions:	55x80x110 mm
Weight:	150g

#### GPS Receiver and antenna:

##### Acquisition times:

Reacquisition	<2s
Hot	~1s
Warm	~38s
Cold	~45s

Measurement pulse time:  $\pm 1$  microsecond at rising edge of pulse

Protocol:	NMEA 0183
Sensitivity:	-185 dBW minimum
Operating temperature:	-30...+80 °C
Mounting:	outdoor
Cable:	fixed length 9,14m, CAT5
Dimensions:	96.1mm diameter, 49.5mm in height
Weight:	201grams

### Connections

Connectors:	2x RJ45; 1 for GPS receiver, 1 for PC/Controller Fibre-optic Versalink
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## PC software.

Software consists of following files:

- for synchronization the time of single computer - GPS.exe and GPS\_parm.txt
- for synchronization the time in the TCP/IP network - GPS\_server.exe and GPS\_parm.txt
- for time synchronization and sharing the time over TCP/IP network, GPS\_client.exe and GPS\_parm.txt for receiving the time over TCP/IP network

### Installation of GPS time synchronization software for single computer:

- copy files GPS.exe and GPS\_parm.txt to any folder, run GPS.exe
- open *Setup/Setup parameters* and configure:
  - difference between Greenwich and local time
  - time transmission interval (time transmission Tx LED indicator on TLM-GPSTime receiver blinks with the same interval)
  - PC com port number
  - PC clock updating interval
  - full correction or update minutes and seconds only

changes will take effect when you next time run GPS.exe

- click *Commands to GPS/GMT difference and Commands to GPS/time transm. Interval* to send these parameters to GPS receiver.

- add shortcut to GPS.exe to startup folder

### Installation of GPS time synchronization software for time synchronization and sharing the time over TCP/IP network:

- identically with installation for single computer copy files GPS\_serv.exe and GPS\_parm.txt to any folder , run GPS\_serv.exe, configure setup parameters and add shortcut to GPS\_serv.exe to startup folder

GPS\_serv.exe uses TCP/IP socket port 1609

### Installation of GPS\_client.exe and GPS\_parm.txt for receiving the time over TCP/IP network:

- copy files GPS\_cli.exe and GPS\_parm.txt to any folder, run GPS\_cli.exe, from *Setup/Setup parameters* you can configure:
  - PC clock updating interval
  - full correction or minutes and seconds only
  - **TCP/IP address of PC, on which the GPS\_serv.exe is running**

- add shortcut to GPS\_cli.exe to startup folder

