

## GPSD – GPS Central Time System

**GPSD Central Time System provides precise time information derived every second from the GPS satellite system (L1 frequency 1575.42 MHz). If the GPS signal is blocked, the GPSD time information is controlled by a precise internal time unit.**

- Central time system synchronized via GPS satellite system
- Received Signal Type: GPS - L1 frequency (1575.42 MHz), C/A Code
- Tracking Capability: 12 simultaneous satellite channels
- Timing Accuracy:  $\pm 20 \mu\text{sec}$
- Time Offset (Time Zone): CET, CET + ST, UTC-11 to UTC+12, user preset
- Timing Accuracy without GPS Signal:  $\pm 10 \text{ sec/month}$
- Acquisition Time: max. 15 sec (hot start)  
max. 45 sec (warm start)  
max. 90 sec (cold start)
- Input: BNC connector for active antenna (COAX cable  $75 \Omega$ , max. 25 m)
- External Antenna: Low profile active micro strip patch antenna
- Outputs: 1x serial port RS232 - time string OSC/Meinberg  
1x serial port RS485/422 - time string OSC/Meinberg  
2x programmable TTL switches/slave clock control signal  
1x service LCD display 2x16 chars
- Supply: main 220/230 V~  $\pm 10 \%$  /5 VA, backup 24 V=  $\pm 20 \%$  /90 mA
- Operating temperature: Antenna:  $-40 \text{ }^\circ\text{C} \dots +100 \text{ }^\circ\text{C}$   
G PSD Unit:  $-10 \text{ }^\circ\text{C} \dots +50 \text{ }^\circ\text{C}$
- Protection: Antenna IP64, Time System IP30
- Housing: antenna: 49.6 x 43 x 18.5 mm (magnetic/mechanical mount)  
GPSD Unit: plastic case for 35 mm DIN mounting rail (DIN EN 50022)

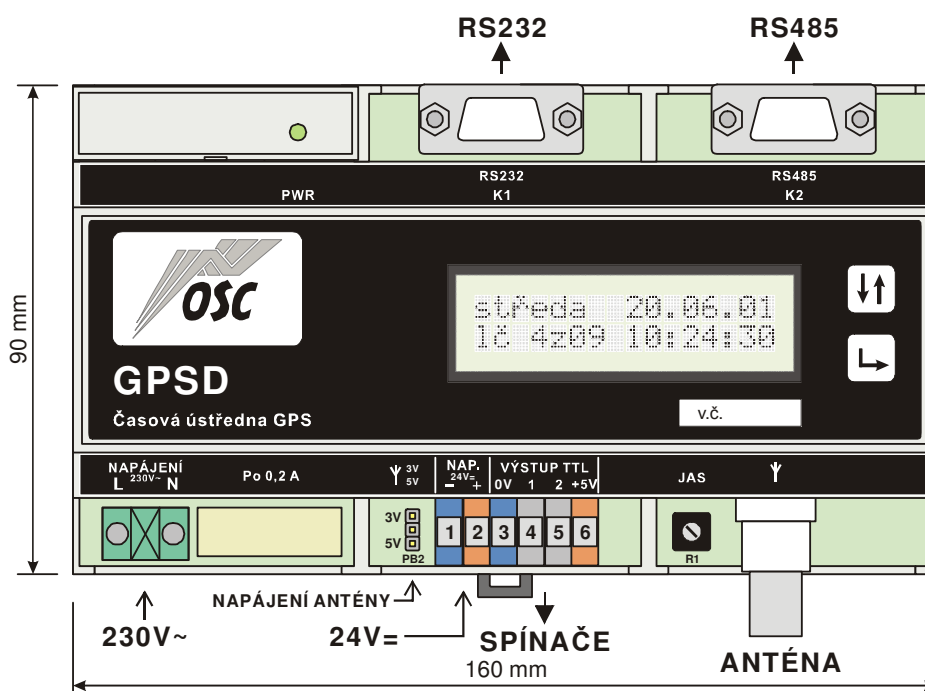


Figure 1: GPSD unit (front view)

The GPS time system offers, in addition to providing the precise time, the option to display current geographical coordinates, altitude and velocity on the service LCD display.

Time zone, serial interfaces and TTL outputs may be set by 2 buttons and the service LCD display.

In conjunction with the PH07 - relay driver - and JP24 - supply unit - modules the time system is capable of controlling one or more loops for a secondary clock (polarized minute pulses 24V, 2A max.).

Unit RSL2M can be used for increasing RS485/422 lines.

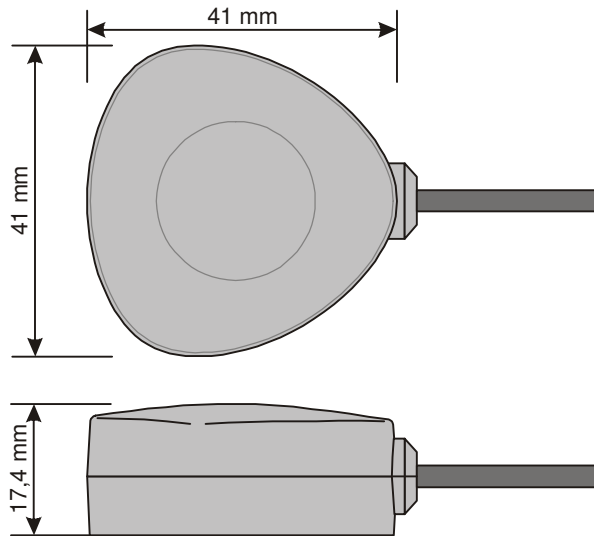


Figure 2: Standard antenna (2J410M)

The active antenna is connected via the BNC connector. TTL outputs and backup power supply are connected to the WAGO terminals; the mains supply is connected via the terminal block. The maximum diameter of the wires used is 2.5 mm<sup>2</sup>. The RS232 and RS485/422 serial interfaces are connected via CANON9 connectors.