



## GPS receiver 122980-51



### GPS antenna/receiver

The GPS-receiver is intended for outdoor mounting and the antenna needs clear view upwards.

The receiver can be mounted on a mast by using a clamp or directly to a wall by using the enclosed aluminium bracket. It is also possible to remove the aluminium bracket and mount the enclosure directly to a roof.

A built in LED indicates the signal reception.

Connection to the master clock is done with 3 wires.

### General

The Global Positioning System (GPS) is a satellite based navigation system. GPS is a constellation of 24 or more satellites providing world-wide, 24 hour, and three dimensional (3D) coverage.

The satellites broadcast radio signals to provide their locations, status, and precise time from on-board atomic clocks. By computing the distance to satellites orbiting the earth, a GPS receiver can calculate an accurate position and time.

GPS is the most accurate technology available for easy timing.

Westerstrand GPS unit uses a miniature 66-channel GPS. Its compact size and low power consumption make it ideal for this application.

### Technical Specifications

#### Sensitivity

Acquisition: -148dBm, cold start

Reacquisition: -163dBm, Hot start

Tracking: -165dBm

Timing accuracy:  $\pm 10$ ns RMS

#### Time To First Fix (TTFF)

Hot start: 1 second typical (with battery, GPS switched off less than 2 hours),

Warm start: 33 seconds typical (with battery, GPS is switched off more than 2 hours)

Cold start: 35 seconds typical (without battery)

Antenna noise figure: < 1.5dB

Operating temp: -40°C to +80°C

Prime power: +8V to 35V (Power supply from Master Clock / Time Central)

Power consumption: 0.2 watt (nominal)

Backup power: 3V lithium battery

Antenna: Compact, active antenna. Short circuit protection

Connection wire: 3 x 0.25mm<sup>2</sup> shielded, maximum length 300m

Cable example: ELAKY/ELAQBY 2 x 2 x 0,28 mm<sup>2</sup>, LIYCY 3 x 0,25 mm<sup>2</sup>

Housing: Polycarbonate case IP66, colour grey RAL 7035

Dimension: 100 x 100 x 50 mm

Weight: Approx. 0.3 kg

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