



Meinberg Radio Clocks

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ED170MP: The ready-to-operate GPS system built up in rackmount slimline modular case.

The ready-to-operate system ED170MP

The satellite receiver clock ED170MP provides extremely precise time as well as pulses and frequency outputs. The clock has been developed for applications where conventional radio controlled clocks cannot meet the increasing requirements in precision and reliability. High precision available 24/7 around the world is the main feature of this high-quality system which receives its information from the satellites of the Global Positioning System.

Key Features

- 2 time trigger inputs
- Pulses per second and per minute
- 2 RS-232 interfaces
- integrated power supply (85 ... 264VAC)
- Four frequency outputs 10MHz, 3.0Vpp into 50 Ohm
- alarm relay output, changeover contact
- Including GPS antenna, 20m standard cable and manual on USB key

Description



The ready-to-operate system ED170MP is built up in 19" slimline modular case (1U).

The frequency locking of the master oscillator to the GPS system enables the module GPS170 to generate fixed and programmable standard frequencies with high accuracy and stability. Various oscillator options allow the cost efficient implementation of different requirements concerning the accuracy of the outputs. The pulse generator of ED170 generates pulses per second and per minute. The pulses are synchronized to UTC second.

Two serial interfaces are available for sending time strings. These ASCII telegrams include information regarding time, date and status of the GPS receiver. The module provides two inputs for measurement of asynchronous time events. These capture events can be read via a serial interface.

A powerful and feature-rich software called GPSMON is available for configuration and monitoring of your Meinberg GPS receivers.

Characteristics

Receiver Type	6 channel GPS C/A-code receiver
Status Indicators	Fail-LED shows that the internal timing has not been synchronized or that a system error occurred Lock-LED shows that the calculation of the position has been achieved after reset
Type of Antenna	Included [1] GPSANTv2 antenna with innovative downconverter technology that allows transmission routes of up to 300 m using RG58 cable, 700 m using RG213 cable, and 1100 m using H2010 Ultraflex cable
Control Elements	Configuration occurs by using the enclosed monitoring software, connected to the system via the serial interface COM0.
Synchronization Time	Max. 1 minute in normal operating conditions Max. 25 minutes (average 12 minutes) upon first initialization or in the absence of saved satellite data
Frequency Outputs	Four frequency outputs: 10MHz, 3.0Vpp into 50 Ohm, female BNC connectors
Pulse Outputs	Four pulse outputs: 1PPS, 3.0Vpp into 50 Ohm, female BNC connectors
Interface	Two independent serial RS-232-interfaces, menu configurable
Serial Time String Output	Baud rate: 300, 600, 1200, 2400, 4800, 9600, 19200 Baud Data format: 7N2, 7E1, 7E2, 8E1, 8N1, 8N2 Time telegram: [2] Meinberg Standard Time String , SAT, Uni Erlangen (NTP), SPA, Sysplex, RACAL, NMEA0183 (RMC,GGA,ZDA), Meinberg GPS, COMPUTIME, ION oder [3] Capture String
Time-Trigger inputs	Resolution: 100 nsec, triggered by falling TTL slope Time of trigger event readable via RS232-interface
Antenna Connector	Type-N connector
Backup Battery Type	When main power supply fails, hardware clock runs free on quartz basis, almanac data is stored in RAM Life time of lithium battery min. 10 years
Supported Time String Formats	Meinberg Standard Timestring, Uni Erlangen Timestring, SYSPLEX Timer, NMEA, Computime, ABB-SPA, SAT, Arbiter
Firmware	Flash-EPROM, bootstrap loader
Form Factor	19" aluminium case (1U) Schroff Multipac
Power Supply Unit	Standard PSU: 85 ... 264VAC, 47 ... 63Hz Several other power supply units (even for DC power supply) are available upon request.

Physical Dimensions	485mm x 45mm x 305mm
Protection	IP20
Supported Temperature	Operational: 0 - 50 °C (32 - 122 °F) Storage: -20 - 70 °C (-4 - 158 °F)
Supported Humidity	Max. 85 % (non-condensing) at 40 °C
Contents of Shipment	Included in delivery is our [1] GPS antenna incl. converter unit and 20 m GPS antenna cable (RG58).
Warranty	Three-year warranty

Manual

There is no online manual available for this product.: [4][Contact us](#)

Links:

[1] <https://www.meinbergglobal.com/english/products/gps-antenna-converter.htm>

[2] <https://www.meinbergglobal.com/english/specs/timestr.htm>

[3] <https://www.meinbergglobal.com/english/specs/capstr.htm>

[4] <mailto:info@meinberg.de>