

Industriefunkuhren



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## Technical Manual

### **6875LAN-7271 GPS DIN Rail TimeServer for NTP / SINEC H1**

- with AC power supply with wide input range
- two independent serial interfaces
- DCF77 antenna simulation
- IRIG-B output - analogue and digital
- three programmable pulse outputs (optical coupler)

**Optional:** Output of pulses and serial data strings via fiber optic (ST)

**ENGLISH**

**Version: 01.00 – 20.05.2009**



## Symbols and Characters



### **Operational Reliability**

Disregard may cause damages to persons or material.



### **Functionality**

Disregard may impact function of system/device.



### **Information**

Notes and Information.



### Safety regulations

The safety regulations and observance of the technical data serve to ensure trouble-free operation of the device and protection of persons and material. It is therefore of utmost importance to observe and compliance with these regulations.

If these are not complied with, then no claims may be made under the terms of the warranty. No liability will be assumed for any ensuing damage.



### Safety of the device

This device has been manufactured in accordance with the latest technological standards and approved safety regulations

The device should only be put into operation by trained and qualified staff. Care must be taken that all cable connections are laid and fixed in position correctly. The device should only be operated with the voltage supply indicated on the identification label.

The device should only be operated by qualified staff or employees who have received specific instruction.

If a device must be opened for repair, this should only be carried out by employees with appropriate qualifications or by **hopf** Elektronik GmbH.

Before a device is opened or a fuse is changed all power supplies must be disconnected.

If there are reasons to believe that the operational safety can no longer be guaranteed the device must be taken out of service and labelled accordingly.

The safety may be impaired when the device does not operate properly or if it is obviously damaged.

### CE-Conformity



This device fulfils the requirements of the EU directive 89/336/EWG "Electromagnetic compatibility" and 73/23/EWG "Low voltage equipment".

Therefore the device bears the CE identification marking (CE = Communautés Européennes = European communities)

The CE indicates to the controlling bodies that the product complies with the requirements of the EU directive - especially with regard to protection of health and safety for the operator and the user - and may be released for sale within the common markets.

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# 1 General

The GPS DIN rail TimeServer for NTP / SINEC H1 consists of the following components:

1. AC wide range power supply unit
2. GPS Module 6875 (optionally available with FO output)
3. NTP / SINEC H1 LAN board 7271 DIN rail – Version for DIN rail

There is an appropriate technical manual for each of those single components available (Version 26.05.2009):

Ref. 1) **Technical Manual 1:** Power Supply Unit

Description: AC Power Supply AC-M10-D

File name: e\_4465AC\_4475AC\_4800AC\_6870AC\_6875AC\_Netzteil\_0102.pdf

Version: 01.02

Ref. 2) **Technical Manual 2:** Module 6875

Description: GPS radio controlled clock

File name: e6875\_0500.pdf

Version: 05.00

Ref. 3) **Technical Manual 3:** Board 7271

Description: NTP/SINEC H1 LAN Board - Model 7271 and 7272

File name: e7271-7272\_0503.pdf

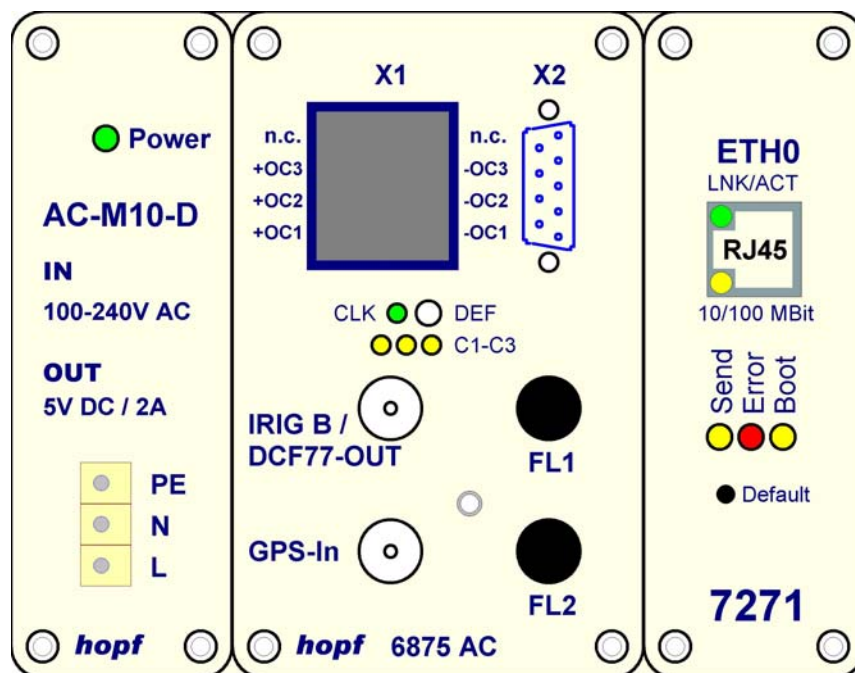
Version: 05.03

## 2 Principle of Function

The integrated power supply unit AC-M10-D supplies the GPS Module 6875 and the NTP / SINEC H1 LAN board 7271 with the required operating voltage.

The necessary time information in form of serial data telegram and highly accurate PPS signal will be transmitted from the GPS module 6875 to the NTP / SINEC H1 LAN board 7271.

The cyclic data transmission between GPS module 6875 and NTP / SINEC H1 LAN board can be controlled by the SEND-LED.



Type of Housing 6 (L = 175.0 mm; W = 135.0 mm; Clip = 80.0 mm)



### 3 Requirements for Commissioning of 6875LAN-7271

Configuring the **GPS Module 6875** for **NTP / SINEC H1 LAN Board 7271** it is necessary to:

- Activating the function by the **hopf** company
- Hardware/Firmware: All devices **FG6875xx** with **firmware version 05.00** and higher
- Remote Software: **HMC** version 01.06  
**HMC driver 'hopf6875\_05xx\_RS232\_v01xx.drv'**
- Web Browser: Internet Explorer, Mozilla Firefox, Opera, etc.



If the required HMC driver '*hopf6875\_v05xx\_RS232v01xx.drv*' is not installed in the HMC, it can be installed separately  
(**HMC** menu: Devices ⇒ Driver Management ⇒ Drivers Add ... )

### 4 Commissioning 6875LAN-7271

- Mounting of unit (see **Technical Manual 1**: Power Supply Unit)
- Connect GPS antenna system with Module 6875  
(see **Technical Manual 2**: Module 6875)
- Connect unit to mains voltage  
(see **Technical Manual 1**: Power Supply Unit)
- Set basis parameters of Module 6875  
(see **Technical Manual 2**: Module 6875)
- Check synchronisation of Module 6875  
(see **Technical Manual 2**: Module 6875)
- 6875LAN-7271 extended Configuration for NTP / SINEC H1 LAN Board 7271:
  - Enter LAN parameter (IP address, gateway and net mask) for **ETH0** interface of NTP / SINEC H1 LAN board 7271



Activating of DHCP mode of the NTP / SINEC H1 Board 7271 is done by setting the IP address to **>000.000.000.000<** (no valid IP address).

- Configuring the NTP / SINEC H1 LAN Board 7271 can be found in the **Technical Manual 3**: Board 7271.



The DIP switch DS1 setting is fixed used for the **NTP / SINEC H1 LAN Board 7271** (DS1.1 - DS1.7 = off; DS1.8 = on).

- Set up NTP / SINEC H1 LAN Board as NTP server in the NTP Client/Server PCs or systems