Technical data.

**General Data**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing:</td>
<td>for 35mm DIN Rail mounting according to DIN EN 60715 TH35</td>
</tr>
<tr>
<td>Protection class:</td>
<td>IP30</td>
</tr>
<tr>
<td>Weight:</td>
<td>approx. 0.8 kg</td>
</tr>
<tr>
<td>Dimensions:</td>
<td>Standard dimensions: W100mm x H105mm x D130mm</td>
</tr>
<tr>
<td></td>
<td>Please note: If you choose to equip your system with 1 additional independent NTP time server / with additional signal output modules, the application will be delivered with an extended mounting rail: W135mm x H105mm x D130mm</td>
</tr>
<tr>
<td>MTBF:</td>
<td>&gt; 250,000h</td>
</tr>
</tbody>
</table>

**Power Supply**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage:</td>
<td>100-240V AC, 47-440Hz</td>
</tr>
<tr>
<td></td>
<td>110-250V DC</td>
</tr>
<tr>
<td>Optional:</td>
<td>24V DC (18-36V DC)</td>
</tr>
<tr>
<td></td>
<td>48V DC (36-76V DC)</td>
</tr>
</tbody>
</table>

**Ambient Conditions**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature:</td>
<td>Operation: 0°C to +50°C</td>
</tr>
<tr>
<td></td>
<td>Storage: -20°C to +75°C</td>
</tr>
<tr>
<td>Humidity:</td>
<td>max. 95%, non condensing</td>
</tr>
</tbody>
</table>

**GPS synchronization input**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiver type:</td>
<td>22-channel receiver, C/A-code</td>
</tr>
<tr>
<td>Evaluation:</td>
<td>L1 frequency (1,575.42MHz)</td>
</tr>
</tbody>
</table>

**Accuracy**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal PPS pulse:</td>
<td>&lt; ± 100ns</td>
</tr>
<tr>
<td>VCO Regulation:</td>
<td>± 0.1ppm, after 30min. GPS reception</td>
</tr>
<tr>
<td>Drift for T = +20° (const.):</td>
<td>after 1h: 0.36msec</td>
</tr>
<tr>
<td>Freewheel accuracy:</td>
<td>after 24 h: 8.64msec</td>
</tr>
</tbody>
</table>
**CE Conformity**

EN 55022:2010 / AC:2011  
EN 61000-3-2:2006 / A2:2009, EN 61000-3-3:2013  
EN 55024:2010

**Low Voltage Directive – 2014/35/EU (formerly 2006/95/EC)**
EN 60950-1:2006 / AC:2011

**RoHS Directive – 2011/65/EU**

**Interfaces**

- 1x Ethernet 10/100 Mbit/s autosensing via RJ45
- 1x USB-Port for update and recovery function
- 1x optical coupler for synchronization status output
- **Optional**: additional signal output modules  
  - * 1 x additional independent NTP timeserver can be integrated
  - * IRIG-B (analogue / digital)
  - * DCF77 pulse
  - * Cyclic Pulses

**Time Protocols**

- NTPv4 Server
- NTP Broadcast
- NTP Multimode
- NTP Client for further NTP Server (redundancy)
- SNTP Server
- SINEC H1 time datagram – **optional**
- RFC-867 DAYTIME Server
- RFC-868 TIME Server

**RFC Listing of Supported Protocols**

- NTPv4 - Protocol and Algorithms Specification (RFC 5905)
- NTPv4 - Autokey Specification (RFC 5906)
- PPS API (RFC 2783)
- DHCP (RFC 2131)
- Time Protocol (RFC 868)
- Daytime Protocol (RFC 867)
- HTTP (RFC 2616)
- HTTPS (RFC 2818)
- SSH-2 (RFC 4250-4256, 4335, 4344, 4343, 4419, 4432, 4716, 5656)
- TELNET (RFC 854)
- SNMP (RFC 1213, RFC1901-1908) – **optional**
- SYSLOG (RFC 5424) – **optional**
- SMTP (RFC 5321) – **optional**

**Customized system modifications are available upon request!**