DESCRIPTION

Time distribution and relay programming through DHF radio and NTP.
• Master clock with programmable circuits, control of clock network, relays and bells, NTP time server.
• Modular design allowing the addition option cards (2 for the wall model and 4 for the rack version).
• Quartz oscillator time base that can be synchronised by a ALS, DCF, GPS or NTP antenna.
• 3 programmable circuits with weekly, holidays or special day modes for the control of bells or other systems such as heating, air conditioning, lighting, alarms, access control...
• Automatic resetting of time distribution after power shortage.
• Automatic summer/winter changeover.
• Programming by PC based software and program upload through USB flash drive or Ethernet network.

STANDARDS

• FI/DCF signal standard: NFC 90002.
• IRIG.B/AFNOR standard: NFS 87500A.
• AFNOR/DHF standard: NFS 87500C, fixed channel 869.525 MHz at 500mW.

GENERAL FEATURES

• LED indicators................................. Power and alarm.
• Quartz............................................. TCXO (temperature compensated crystal oscillator).
• Typical accuracy.............................. 0.1 sec/day to 25°C and maximum 0.2 sec/day of 0 to 40°C.
• Absolute accuracy........................... 50ms with radio antenna ALS or DCF, 2ms with GPS antenna.
• Backlit LCD display.......................... 2 lines of 24 characters.
• LCD display.................................... Hour - minute - second - date.
• Backup......................................... Of programming in flash memory and a Lithium battery keeps the internal clock running.
• Access to the programming............... Protected by access code.
• Circuits........................................ 3 relay circuits, contact rating: 1A / 240V.
• Protection....................................... Time distribution outputs protected against short circuits and overloads.

MECHANICAL FEATURES

• Construction................................. ABS casing for wall-mounted or aluminum casing for 19” rack (1U height).
• Protection index............................... IP 41.
• Operating temperature range........... 0° to +50°C.
• Keypad......................................... Sensitive keys.
ELECTRICAL FEATURES

- Power supply........................................ 24VDC (25W), 36-72VDC (50W), 100-240VAC; 0.8 - 0.55A.

I/O CONNECTIONS

- Sigma Mod Inputs/Outputs....................... 1 polarised impulse output (24V / min / ½ minute / second, 0.5A), SR2-59 or TBT 24V, 1 DHF output for radio transmitter, 1 IRIG B/AFNOR coded time output, 1 external contact input, 1 USB port, 3 relays (programmable as D1D2 impulses, alarm or circuits), 1 Ethernet (RJ45) - NTP protocol.

NETWORK SERVICES

PROTOCOLS
NTP............................................ V2, V3, V4. Unicast, Broadcast and Multicast supported.
SNTP........................................... V3, V4.
COMMUNICATIONS
SMTP.......................................... E-mail

MANAGEMENT
IP.............................................. V4.
SNMP.......................................... V2C [Trap].

SCHEMATIC DIAGRAM

- RADIO DHF time distribution
- AFNOR time distribution or 24V impulse
- NTP time distribution and IP bell systems
REFERENCES

<table>
<thead>
<tr>
<th>Wall Rack</th>
<th>Description</th>
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<tbody>
<tr>
<td>907 451 907 453</td>
<td>Sigma Mod 100-240VAC</td>
</tr>
<tr>
<td>907 452 907 454</td>
<td>Sigma Mod 24VDC</td>
</tr>
<tr>
<td>907 456</td>
<td>Sigma Mod 36–72VDC</td>
</tr>
</tbody>
</table>

ACCESSORIES

- 907 025 ALS radio antenna
- 907 026 DCF radio antenna
- 907 037 GPS antenna
- 907 512 DHF transmitter
- 927 241 DHF secondary transmitter

OPTION CARDS

<table>
<thead>
<tr>
<th>References</th>
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<tr>
<td>907 531</td>
<td>1x 24V // impulse, minute or second output</td>
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<tr>
<td>907 533</td>
<td>3x AFNOR outputs</td>
</tr>
<tr>
<td>907 534</td>
<td>2x ASCII RS232/422/485 outputs</td>
</tr>
<tr>
<td>907 535</td>
<td>3x programming relay [1 relay R/T, 2 relays T]</td>
</tr>
<tr>
<td>907 536</td>
<td>1x AFNOR synchronisation input</td>
</tr>
<tr>
<td>907 537</td>
<td>1x Sigma Sound module</td>
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<tr>
<td>907 539</td>
<td>2x 20-50V serial impulse outputs</td>
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<tr>
<td>907 541</td>
<td>2x 24V serial impulse outputs</td>
</tr>
<tr>
<td>907 542</td>
<td>3x external inputs</td>
</tr>
</tbody>
</table>

NOTE:
MICROSOFT does not guarantee any compatibility with the NTP protocol. A Windows 2000 server does not allow you to synchronise a NTP client (in this case, use the NTP MONITOR Bodet software). A Windows 2003 server can synchronise a NTP client. Linux servers, on the other hand, are entirely compatible.