

PRESENTATION

Compact and modular, the Netsilon time server combines the accuracy of a master clock with the secure approach of data networks:

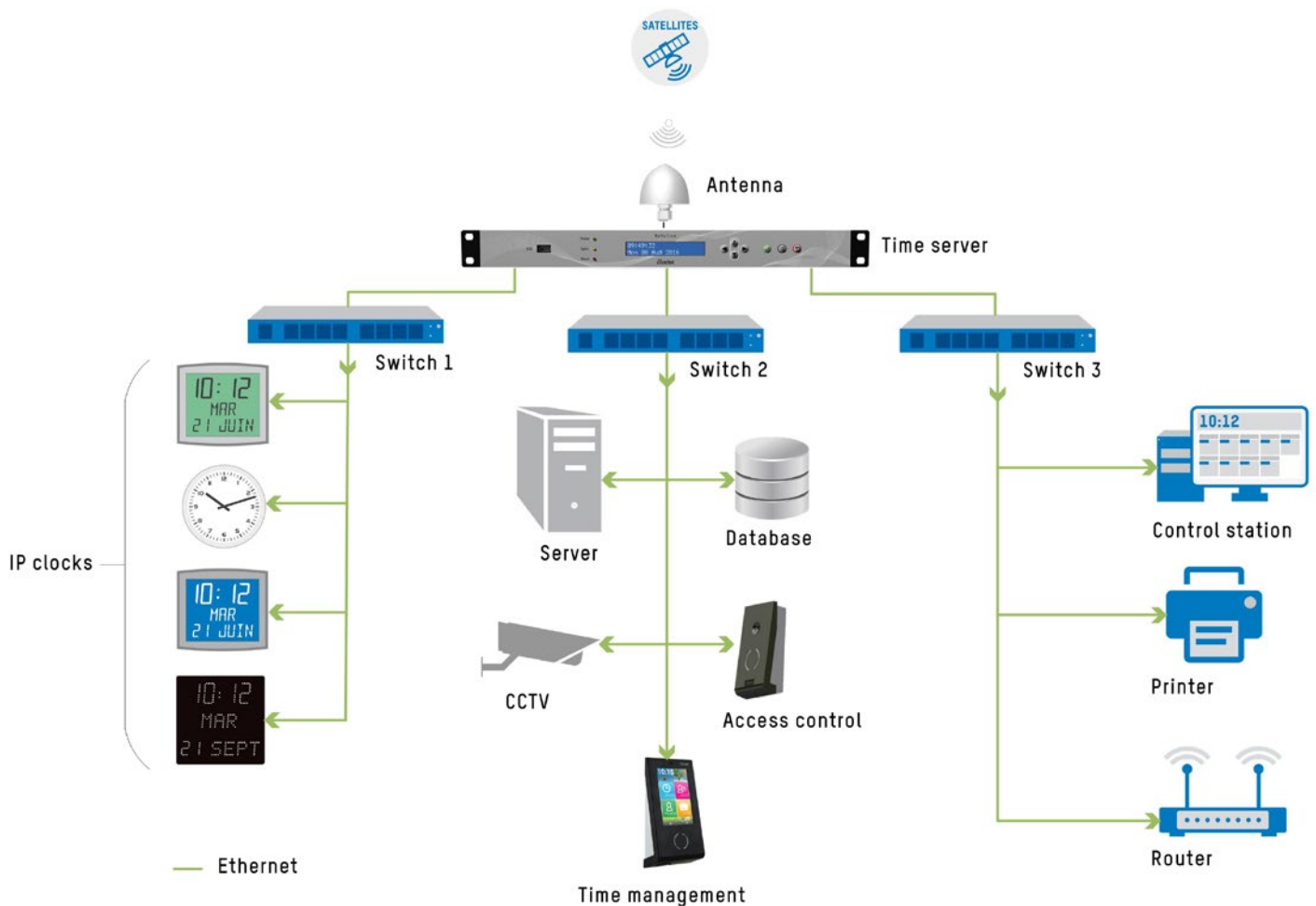
- High-precision internal clock regulated by its TCXO quartz.
- Priority order for the different synchronisation references (input).
- Modular design allowing a wide variety of input/output signals (up to 4 expansion cards).
- Network security management: Enable/disable encryption, authentication, and access protocols.
- Alarm information available as SNMP traps and email.



APPLICABLE STANDARDS

- EN 55024 (2010)
- EN 55032 (2012)
- EN 61000-3-2 (2014)
- EN 61000-3-3 (2013)
- EN 61000-6-2 (2005)
- EN 50121-4 (2006)
- EN 62311 (2008)

EXAMPLE OF INSTALLATION

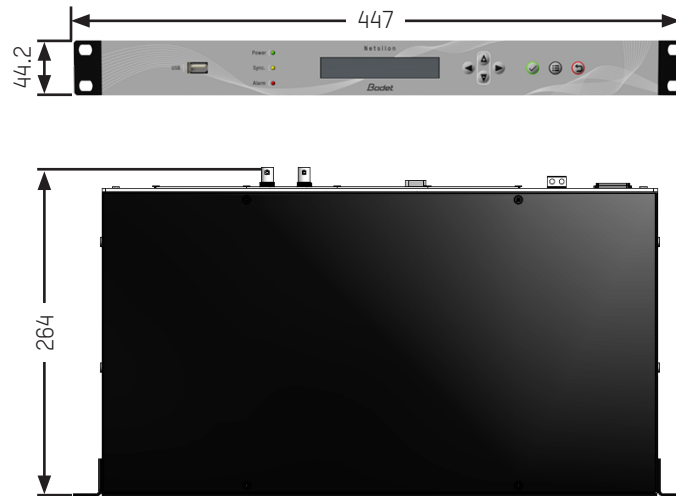


MODELS

| | QUARTZ TCXO TYPICAL VALUES |
|---|--|
| Accuracy (average after 24 hours with GPS signal) | 1x10 ⁻⁹ |
| Stability (average after 2 weeks with GPS signal) | 1x10 ⁻⁷ /day |
| Input | 1x GPS |
| Outputs | 1x Ethernet, 4 slots for expansion cards |
| Holdover (after 2-week GPS synchronisation at constant temperature) | 5 ms (after 24 hours) |
| Alarm | SNMP traps, email and relay contact |

MECHANICAL CHARACTERISTICS

| | |
|-----------------------------|-----------------------------|
| Construction | Metal case – 1 U rack – 19" |
| Operating temperature | From 0°C to +50°C |
| Humidity rating | 0-90 % without condensation |
| Protection rating | IP41 |
| Weight | 2.5 kg |
| Dimensions | 447 x 264 x 44.2 mm |



ELECTRICAL CHARACTERISTICS

| | |
|--|--|
| Power supply (without ventilation) | 18-36 VDC (5,5A) 85-264VAC; 1,9-0,75A |
| MTBF | 100,000 hours |

COMMUNICATIONS

| | |
|-------------------------------------|--|
| Network port | RJ45, 10/100/1000 BASE-T |
| Configuration serial interface..... | RS232, DB9 connector |
| Front panel | USB socket (Enable/Disable) for saving and updating software Keyboard (lockable) and LCD screen for network configuration |

NETWORK CHARACTERISTICS

PROTOCOLS

| | |
|------------------------------|--|
| NTP V2, V3, V4 | Conforms RFC 1305 and 5905. Supports Unicast, broadcast, Multi-cast, Anycast, MD5 encryption, peering and Autokey. |
| Client/server mode: | |
| NTP requests per second..... | > 2000 |
| SNTP V3, V4 | Conforms with RFC 1769, 2030, 4330 and 5905. |
| TIME PROTOCOL | Conforms with RFC 868. |
| DAYTIME PROTOCOL | Conforms with RFC 867. |

COMMUNICATION

| | |
|-----------------|---------------------------------------|
| HTTP/HTTPS..... | Conforms with RFC 2616. |
| SSH..... | SSH v1.3, SSH v1.5, SSH v2 (openSSH). |

MANAGEMENT

| | |
|---------|-------------------------|
| IP..... | IPv4, IPv6 : Dual stack |
|---------|-------------------------|

SERVICES

| | |
|------------|----------------------------------|
| DHCP | DHCPv4, DHCPv6, Autoconf & Slaac |
| SMTP | Mail forwarding |

SUPERVISION

| | |
|------------------------------------|---|
| SNMP | v1 (RFC 1157), v2c (RFC 1901-1908) and v3 (RFC 3411-3418) |
| Relay contact/External input | Sending and reception of alarms |

SECURITY FEATURES

- Enable/disable protocols
- Protection by single authentication (login + password)
- DES and AES encryption
- SHA-1, MD5 authentication
- SSL encryption
- SCP: secured copy of Netsilon files in SSH session
- SFTP: secured transfer of Netsilon files in SSH session

REFERENCES

| | |
|----------------|--------------------------------------|
| • 907900 | NETSILON 7 (100-240 VAC) |
| • 907901 | NETSILON 7 (18-36 VDC) |
| • 907902 | NETSILON 7 (100-240 VAC + 18-36 VDC) |

EXPANSION CARDS

| | |
|----------------|--|
| • 907920 | Netsilon 2-port RJ45 NETWORK Card |
| • 907940 | Netsilon 2-outputs AFNOR Card |
| • 907942 | Netsilon 1-output Pulse Card |
| • 907944 | Netsilon 1 input + 1 output Current Loop Card |
| • 907921 | Netsilon 2-port SFP Optical fiber NETWORK Card |

ACCESSORIES

| | |
|----------------|-----------------------------------|
| • 907047 | Bodet GPS synchronisation antenna |
| • 907241 | DHF secondary transmitter |
| • 927230..... | DHF transmitter AFNOR receiver |



EXPANSION CARDS

CURRENT LOOP CARD

| | |
|-------------------------|-----------|
| Quantity | 1x output |
| Signal type | Analogue |
| Connector | Terminal |
| Max. no. of cards | 1 |
| Typical power | < 1W |

AFNOR CARD

| | |
|-------------------------|--------------------------|
| Quantity | 2x outputs (independent) |
| Signal type | Amplitude modulation |
| Connector | Terminal |
| Max. no. of cards | 4 |
| Typical power | < 1W |

NETWORK CARD

| | |
|-------------------------|---------------------------------|
| Quantity | 2x ports |
| Connector | RJ45, 10/100/1000 BASE-T |
| Max. no. of cards | 2 (max. 5 ports : 1 Eth0 + 2x2) |
| Typical power | 4.6W |

PULSE CARD

| | |
|-------------------------|---------------------------------------|
| Quantity | 1x output |
| Signal type | 24 VDC (Min or 1/2 Min //) |
| Connector | Terminal |
| Max. no. of cards | 4 |
| Typical power | 30W during the pulse 2W on average |

OPTICAL FIBER NETWORK CARD

| | |
|-------------------------|---------------------|
| Quantity | 2x ports |
| Connector | SFP - Giga Ethernet |
| Max. no. of cards | 2 (max. 4 ports) |
| Typical power | 4.6W |