



VaiNet Wireless Access Point AP10



Features

- One AP10 supports up to 32 VaiNet data loggers
- Powered by Power over Ethernet (PoE) or DC adapter
- Minimal infrastructure and no signal amplifiers needed
- Uses HTTPS communication and encryption to ensure secure data transmission
- Chirp Spread Spectrum wireless modulation is resistant to multi-path fading
- Secure firewall and tamper-proof data backup

VaiNet Access Point AP10 is a wireless networking hardware device for Vaisala's proprietary wireless technology: VaiNet. AP10 can connect up to 32 VaiNet wireless data loggers (such as the RFL100) to Vaisala viewLinc Monitoring System.

AP10 in the viewLinc Monitoring System

AP10 access point transfers measurement data from wireless VaiNet data loggers to the viewLinc Enterprise Server, and enables the remote configuration and management of VaiNet data loggers by the viewLinc administrator. A wired Ethernet network connection between AP10 and viewLinc Enterprise Server is required.

Registration of new data loggers is handled by viewLinc Enterprise Server software. Whenever a new data logger is added to the system, AP10 automatically

identifies it and forwards its information to viewLinc. Once accepted in viewLinc, VaiNet data loggers stay synchronized, even in situations where other nearby VaiNet networks overlap.

Data Integrity

Data is encrypted during VaiNet transfers to protect against eavesdropping, data tampering, and transfer errors. Both the access point and the viewLinc Enterprise Server software verify that the data has

been received correctly. Once the data is verified, it is stored to viewLinc's secure database and protected from tampering and loss.

Redundancy

Redundancy of the wireless connection is achieved through use of multiple VaiNet access points and free connection capacity in the system. If a VaiNet data logger has a connection problem, it will automatically connect to another available access point in the system.

Technical Data

Wireless

| | |
|--|---|
| Networking standards | Vaisala VaiNet |
| Modulation | LoRa™ chirp spread spectrum modulation |
| Output power | 14 dBm (25 mW) |
| Antenna | Non-removable external antenna |
| Typical range (indoors) | At least 100 m (328 ft) |
| Maximum number of access points in an area | 8 |
| Frequency Bands | |
| Model API0E | 868 MHz (Europe) |
| Model API0A | 915 MHz (North America, Australia, and New Zealand) |
| Safety | |
| Electrical safety | EN/UL/IEC 61010-1 |
| RF exposure | KDB 447498 (United States) RSS-102 Issue 5 (Canada) |
| EMC and Radio Standards | |
| EMC compliance | EN/IEC 61326-1, industrial environment |
| Model API0E | ETSI EN 300 220-2 EN 301 489-1 EN 301 489-3 |
| Model API0A | FCC title 47 part 15.247 (United States) ICE RSS-247 (Canada) AS/NZS 4268 (Australia and New Zealand) |

Operating Environment

| | |
|-----------------------|---------------------------------|
| Operating environment | Indoor use |
| Operating temperature | -20 ... +60 °C (-4 ... +140 °F) |
| Operating humidity | 0 ... 90 %RH, non-condensing |
| Storage temperature | -20 ... +60 °C (-4 ... +140 °F) |

Mechanical Specifications

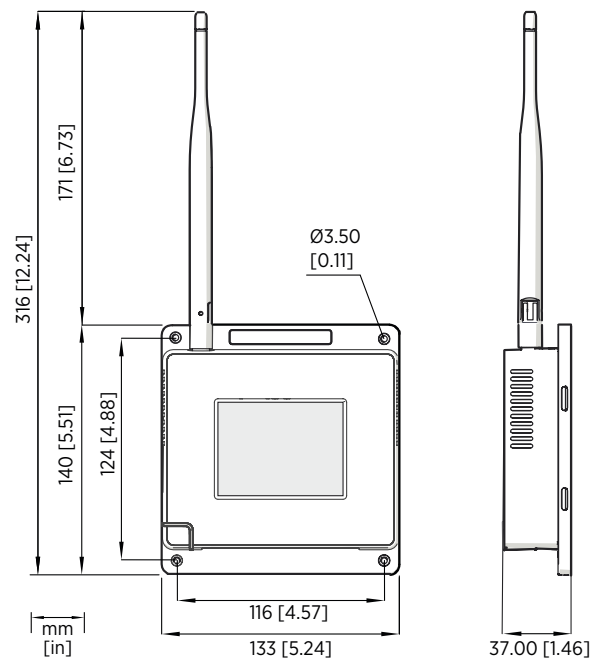
| | |
|------------------------|---|
| IP rating | IP30 |
| Housing color | White |
| Mounting methods | Screws, tie-wrap |
| Weight | 350 g (12.3 oz) |
| Dimensions (H × W × D) | 311 × 133 × 37 mm (12.24 × 5.24 × 1.46 in) |
| Materials | |
| Housing | PC/ABS blend |
| Display window | Polyester |
| Antenna | ABS |

Spare Parts and Accessories

| | |
|-----------------------|----------|
| Power supply for API0 | 244784SP |
| Mounting kit | 245679SP |

Inputs and Outputs

| | |
|--|--|
| Operating voltage using dedicated power supply connector | 10 ... 30 VDC |
| PoE power class | Class 0 |
| Power consumption | Max. 13 W |
| Internal clock | Synchronizes with Network Time Protocol (NTP) server |
| Supported devices | Up to 32 VaiNet compatible data loggers |
| Compatible viewLinc versions | 5.0 and above |
| User interfaces | Web browser interface Local touchscreen interface |
| User interface languages | English, German, French, Portuguese, Spanish, Swedish, Chinese, Japanese |
| Ethernet Interface | |
| Supported standards | 10BASE-T, 100BASE-TX |
| IPv4 address assignment | DHCP (automatic), static |
| Connectors | |
| Power supply connector | 2.0 mm center pin locking type DC power jack |
| Service port | Micro-USB (2.0) |
| Expansion port | USB type A (2.0) |
| Ethernet | 8P8C (RJ-45) |



API0 Access Point Dimensions



VAISALA

www.vaisala.com

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