



Features

- Connects up to 32 CWL100 wireless data loggers to Vaisala Jade Smart Cloud
- Display shows connection status of data loggers and cloud service
- Long range LoRa™ radio with over 100 m (328 ft) typical indoor range
- End-to-end encryption ensures secure data transmission and storage
- Powered by Power over Ethernet (PoE) or DC adapter
- Requires Internet connection through cabled Ethernet network or cellular modem

Cloud Access Point CA10 is a wireless networking hardware device for connecting CWL100 data loggers to Vaisala Jade Smart Cloud service.

CA10 and Jade Smart Cloud

CA10 access point transfers measurement data from wireless CWL100 data loggers to Jade Smart Cloud service, and enables management of the data loggers from the cloud interface. Data is encrypted during transfers to protect against eavesdropping, data tampering, and transfer errors.

CA10 access points and CWL100 data loggers are associated with a specific cloud account when they are purchased, so there is no need for the user to do any device pairing. CA10 always requires power and Internet connection for operation.

Redundancy

Redundancy of the wireless connection is achieved through use of multiple access points and free connection capacity in the system. If a data logger has a connection problem, it will automatically connect to another available nearby access point in the system. At least two access points with free capacity are needed for failover to function.

In case of temporary network disruptions, the CWL100 data loggers can record up to 30 days of measurements. Recorded data can be downloaded directly from the data logger through the USB port.

Time synchronization

CA10 requires accurate time to operate its LoRa wireless connection, and to maintain correct time on the connected data loggers. To achieve the accurate time, CA10 automatically synchronizes with Network Time Protocol (NTP) servers over the Internet.

Technical data

Wireless

Networking standards	LoRa™
Wireless connection capacity	Up to 32 supported devices
Modulation	LoRa chirp spread spectrum modulation
Output power	13 dBm (20 mW)
Antenna	Non-removable external antenna
Typical range (indoors)	At least 100 m (approx. 330 ft)
Maximum number of access points in an area	8
Frequency bands	
Model CA10E	868 MHz
Model CA10A	915 MHz

General

Compatible host systems	Vaisala Jade Smart Cloud
Supported devices	CWL100 data logger
Display language	English
Internal clock	Synchronizes with Network Time Protocol (NTP) servers over the Internet

Requirements for connectivity

Cabled Ethernet network with Internet connection (can be provided using a cellular modem)
Network provides IP address through DHCP
CA10 must be able to access TCP port 443 and UDP port 123

Inputs and outputs

Operating voltage using dedicated power supply connector	10 ... 30 V DC
PoE power class	Class 0
Power consumption	Max. 13 W
Ethernet interface	
Supported standards	10BASE-T, 100BASE-TX
IPv4 address assignment	DHCP (automatic)
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)

Operating environment

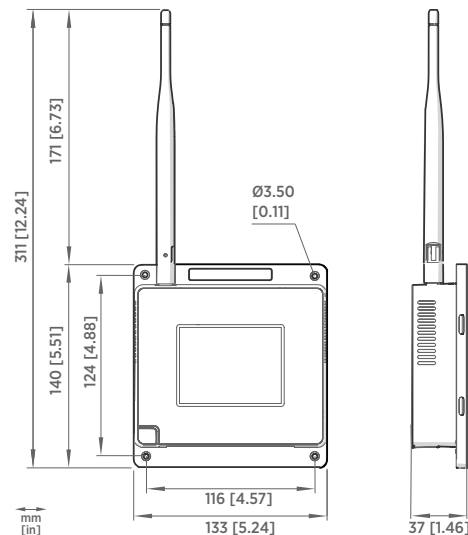
Operating environment	Indoor use
IP rating	IP30
Operating temperature	-20 ... +60 °C (-4 ... +140 °F)
Operating humidity	0 ... 90 %RH, non-condensing
Storage temperature	-20 ... +60 °C (-4 ... +140 °F)

Compliance

EMC compatibility	IEC/EN 61326-1, industrial environment
Electrical safety	IEC/EN 61010-1
CA10E model	
EU directives	RoHS Directive (2011/65/EU) amended by 2015/863 Radio Equipment Directive, RED (2014/53/EU)
Radio standards and approvals	ETSI EN 300 220-2 ETSI EN 301 489-1
Compliance marks	CE, UKCA
CA10A model	
Radio standards and approvals	Anatel ID: 04763-19-12322 AS/NZS 4268 FCC ID: 2AO39-API0A IC ID: 23830-API0A
Compliance marks	ANATEL, RCM

Mechanical specifications

Housing color	White
Mounting methods	Screws, tie wrap
Weight	386 g (13.6 oz)
Dimensions (H × W × D)	311 × 133 × 37 mm (12.24 × 5.24 × 1.46 in)
Materials	
Housing	PC/ABS blend
Display window	Chemically strengthened glass
Antenna	ABS



CA10 access point dimensions