# Overview

The Amberlogger is a measurement and control datalogger developed with a Raspberry Pi micro controller that allows for virtually any sensor (analogue, digital, smart) to be connected. A wide range of communications is available (GPRS, 4G, Wi-Fi or satellite). Access locally with our app available on PlayStore or remotely with our web based Amberlogger. Analyse your data using our own cloud, Ambercloud.

Benefits and Features

- Ambercloud – platform for collecting and analysing data.

- Amberlogger web or Bluetooth - android and web app for remote access.

- Flexible power input from solar panel, DC power supply, 12 V battery.

- eMMC faster and more reliable than an SD card, less sensitive to vibrations and temperature changes, available in 4GB (CM1), 8, 16 and 32gb (CM3) storage space or external hard disk drive for extended storage requirements.

- Digital sensors plug-in using protocols such as SDI-12, MODBUS, RS-232, RS485 or HART. As well as two pulse inputs module.

- Internet communications via Ethernet/LAN, satellite, cellular networks.

- Wireless RF (radio frequency) communication allows loggers to exchange data in remote areas without reliable internet and create mesh networks.

- 16 bits accuracy for analogue converters.

- NTP protocol for accurate time keeping.

- GPS/GLONASS for time keeping (10us of error per year).
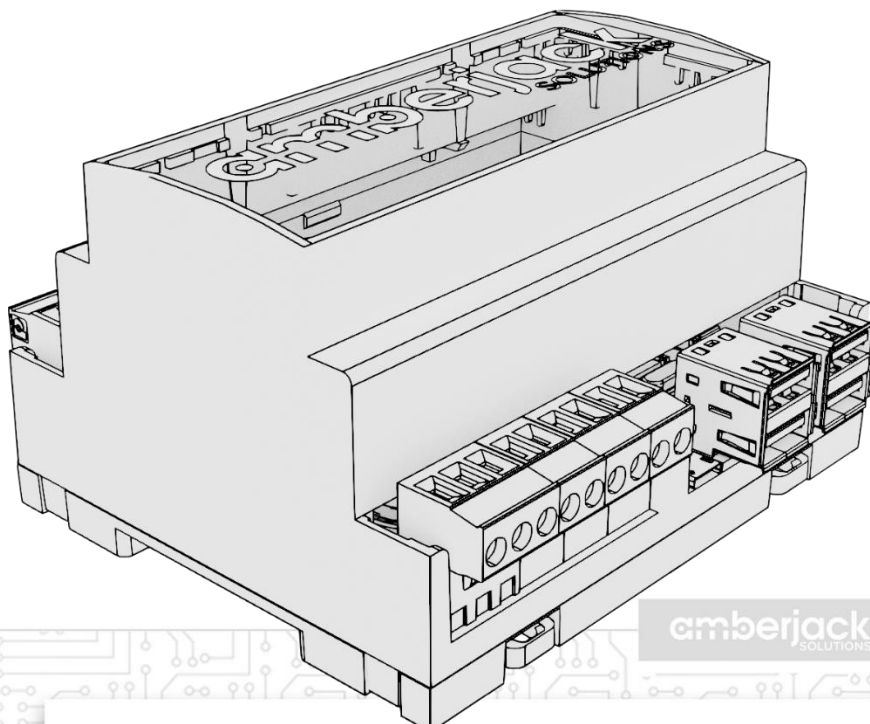
- Automation capabilities.

Technical specifications

- CPU: 700Mhz single core up to 1.2Ghz (single and quad core).

- Internal memory: 512MB, 1GB, 4GB and 8GB depending on the model.

- Storage capacity: eMMC available in 4GB (CM1), 8, 16 and 32gb (CM3) storage space.

- Data logging
  - Sampling rates up to 0,2 Hz.
  - Automatic management of sampled data in case of loss of connectivity.

- Analogue to digital converters
  - 16-bit ADC.
  - 8 Analogue Input Channels.
  - 8ksps Sampling Rate.

- Connectivity
  - Cellular Modem.
  - Satellite.
  - 10/100 Ethernet LAN.
  - W*ireless radio frequency mesh.*