CANedge1

2xCAN/LIN Data Logger (SD + RTC)

PLUG & PLAY: Log data out-the-box. Standalone. Power via CAN connector

CONFIGURABLE: Filters. Transmit lists. Triggers. Cyclic logging. Silent mode

PRO SPECS: Extractable 8-32 GB SD. 2xCAN/LIN. CAN FD. Zero data loss. 50 µs RTC

FAST & SECURE: Industrial SD card. Data encryption for GDPR/CCPA. Compression

COMPACT: Only 8 x 5 x 2 CM. 100G. Alu enclosure. 4 LEDs. Configure CH2 5V power out

INTEROPERABLE: Convert MDF4 to e.g. CSV, ASC, TRC. Free open source GUI/API

The plug & play 2xCAN/LIN logger records timestamped CAN data (Classical/CAN FD) to the extractable 8 GB industrial SD card.

It's easy-to-use: Simply power the device via your CAN connector to start logging raw data. Extract the data and process it using 100% free open source MDF4 software/API tools - or convert it to your favorite log file format (Vector ASC, PEAK TRC, CSV, ...).

The CANedge1 is ideal for logging of CAN/LIN systems over long periods - e.g. for OEM R&D, diagnostics or legal purposes.

New: The CANedge1 is now available with **optional GPS/IMU**.

Pro specs CAN logger - at half the cost

The CANedge1 combines innovative design, cutting-edge components - and incredibly low costs:

- Dual high speed CAN/LIN (incl. CAN FD) channels
- Extractable 8-32 GB industrial SD card (months of data)
- Binary MDF4 log file format (extensive tool support)
- Advanced message filtering & transmit functionality
- Start/stop logging triggers based on CAN ID & databytes
- Silent mode, bit rate auto-detection, cyclic logging
- CAN/LIN error frame logging
- Data compression & encryption (e.g. for GDPR, CCPA)
- Fast boot time. Safely disconnect during use

Open source software/API - naturally

All software/APIs for the CANedge is 100% free and open source.

Data is stored in the popular MDF4 standard to enable interoperability across CAN tools and custom systems.

Convert: Simple MDF4 converters let you convert data to e.g. CSV, ASC (Vector), TRC (PEAK) - for use in your favorite tools.

Process: The asammdf GUI lets you process your data incl. DBC conversion (J1939, OBD2, ...) and graphical plots (Windows/Linux).

Automate: Easy-to-use Python APIs let you automate processing of large amounts of data (incl. quickstart library on github).

Visualize: Easily visualize data in customizable dashboards

Technical specs

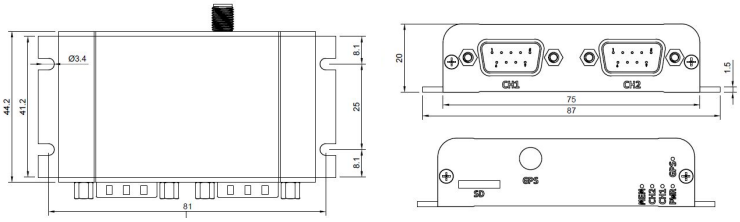
GENERAL	
Safety	CE, FCC, IC certified
Voltage tests	Transients ISO 7637-2:2011 by TÜV SÜD
Warranty	1-year warranty
Support	Free, fast & high quality support
Origin	Denmark
Software	100% free & open source
Documentation	Online/PDF documentation

CAN BUS/LIN BUS	
Channels	2 x CAN/CAN FD + 2 x LIN (master/slave)
Protocols	J1939, OBD2, CANopen, NMEA2000, FD, ...
Bit-rate	Auto-detect/simple/advanced customization

DATA LOGGING	
SD CARD	8-32 GB extractable industrial micro SDHC
Real-Time Clock	50 us resolution (incl. battery backup)
File format	MDF4 (.MF4) - easily process/convert
Safety	100% power safe
Configuration	Advanced options (filters, prescalers, compression, error frame logging, data encryption, triggers & more)

GNSS/IMU (optional)	
GNSS/IMU	Add 40+ GNSS/IMU signals (see deep dive)

MECHANICAL/SUPPLY	
Connectors	2 x DB9 (adapter cables available)
Input supply	+7V to +32V DC via Channel 1 DB9
Consumption	<1W
Dimensions	75 x 47 x 20 mm excl. antenna/flanges
Weight	100 G
LEDs	4 external LEDs (PWR, CH1, CH2, MEM)
Temperature	-25 degC to +75 degC
IP rating	IP40



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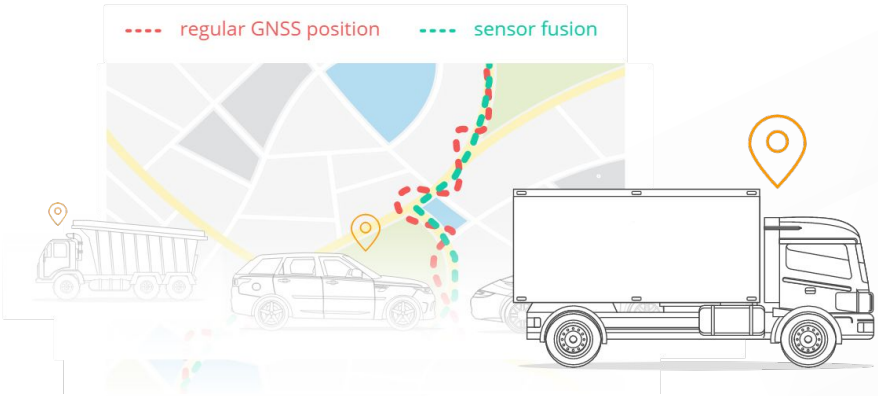
CANedge - GNSS/IMU details



GPS & 3D IMU - enrich your data

The CANedge1/CANedge2 comes with optional cutting-edge GNSS/IMU functionality - perfect for use cases like vehicle telematics.

- Add 40+ GNSS/IMU signals to your 2 x CAN/LIN data
- Full GNSS support (GPS, Galileo, BeiDou, GLONASS)
- Built-in gyroscope (roll, pitch, yaw) + accelerometer (X, Y, Z)
- High precision via sensor fusion incl. in GNSS hostile areas
- Signals encoded as 'internal' CAN data (separate channel)
- Configurable message inclusion/frequency (up to 5 Hz)
- DBC file for easy decoding to human-readable form
- Optionally sync the CANedge RTC via precise GNSS time
- Flexible deployment via external GNSS antenna

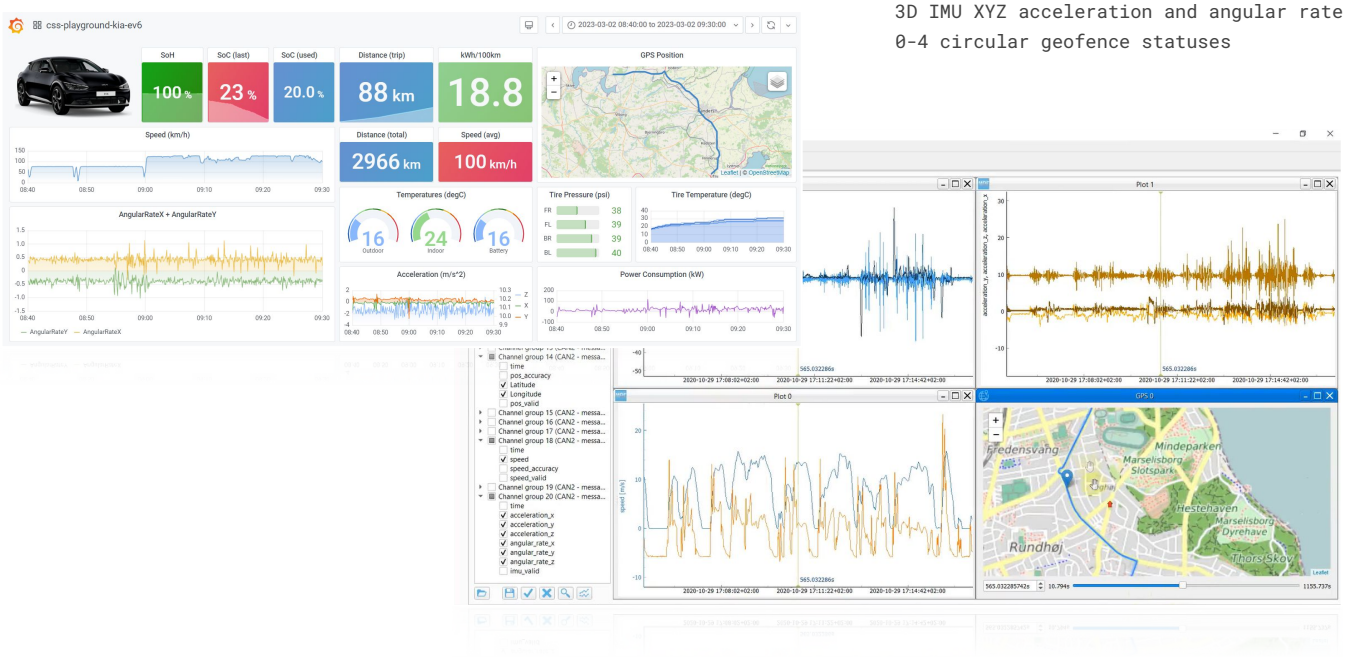
Technical specs (GPS & IMU)

GNSS & 3D IMU

Module	u-blox NEO-M9V sensor module with built-in gyroscope and accelerometer
GNSS	Combine GPS, Galileo, BeiDou, GLONASS
Sensor Fusion (UDR)	Up to 3x better accuracy incl. in GNSS hostile areas (tunnels, urban)
CAN encoding	GNSS/IMU data output on 'internal' pseudo CAN channel encoded as CAN frames [5 Hz]
Configurable	Filter/prescale internal GNSS/IMU data
Antenna	GPS antenna as option (required for GNSS)

Signals

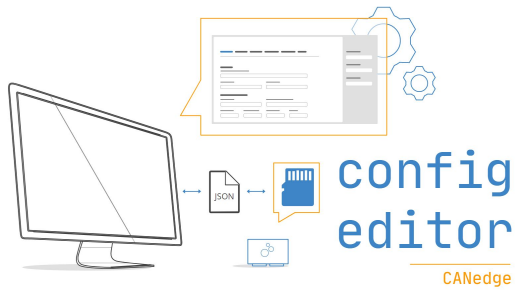
Position: Longitude and latitude
Time: High precision timestamp
Status: Fix type + satellite count
Speed: Travel speed in m/s and km/h
Altitude: Altitude in meters
Roll, pitch, heading [automotives only]
Distance traveled (since power on)
3D IMU XYZ acceleration and angular rate
0-4 circular geofence statuses



The CANedge units with GNSS/IMU are ideal for vehicle telematics, diagnostics and analysis - with easy visualization in e.g. Grafana or asammdf

CANedge software/API tools

100% free and open source, naturally



Easily configure your device

The CANedge/CANmod JSON config can be modified via a GUI editor - either online via browser or offline (e.g. from the SD).

- GUI editor for user-friendly configuration
- Optionally edit your config directly in e.g. Notepad++
- Batch tool available for large-scale configuration OTA

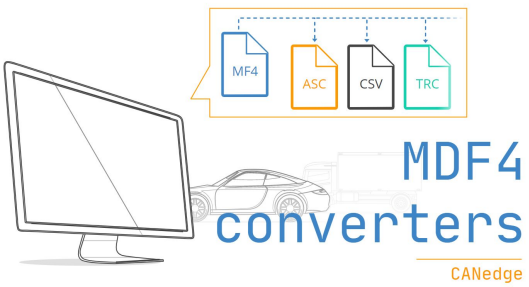
Learn more

Load data in your favorite tools

Simple MDF4 converters let you convert data to e.g. CSV, ASC (Vector), TRC (PEAK) - for use in your favorite tools.

- Drag & drop files/folders onto the converter to process
- Optionally use via the CLI or in scripts for automation
- Decompress/decrypt as part of conversion
- Works on both Windows/Linux

Learn more



DBC convert & plot your data via GUI/API

The free asammdf GUI/API lets you process your data:

- DBC convert data to physical values (incl. J1939, OBD2)
- Easily create advanced graphical plots
- Resample or concatenate your data
- GUI executable for Windows/Linux (no installation)
- Powerful Python API for big data automation

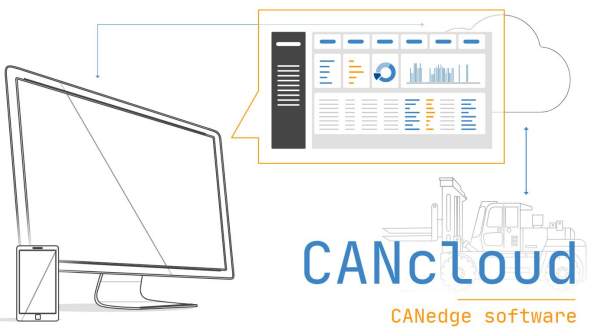
Learn more

Manage your server devices & data

CANcloud is a simple browser tool that lets you manage your S3 server devices & data from any PC/tablet with no installation.

- Host yourself - or simply log into your server here
- Monitor device status across your entire fleet
- Browse, download, share & delete uploaded log files
- Easily update config/firmware over-the-air
- Browser based (works on all OS & devices)

Learn more



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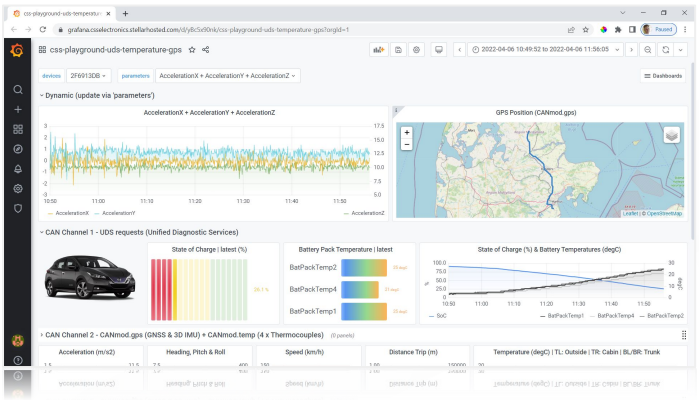
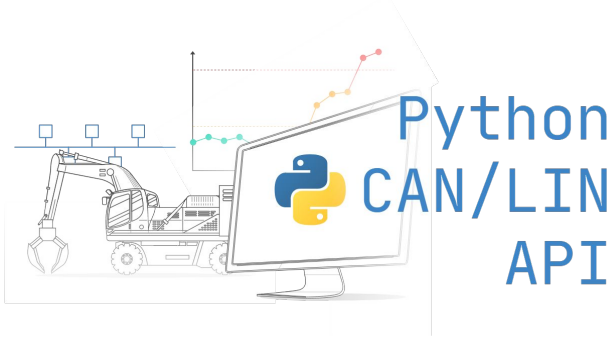




Automate your data processing

Need to automate your CAN bus data processing via Python? The free Python API enables easy listing, loading and DBC decoding of your data - from local disk or your server.

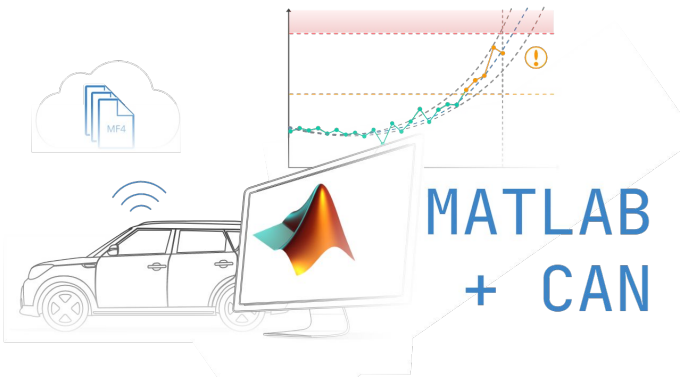
Learn more

Visualize your data in dashboards

With our plug & play dashboard integrations, you can quickly get your CAN/LIN data integrated with custom Grafana dashboards.

Perfect for presenting specific views e.g. for internal sharing, diagnostics - or as services towards clients.

Learn more



Easily load data in MATLAB

MF4 data from the CANedge can be natively loaded via MATLAB's Vehicle Network Toolbox - or converted to compatible MAT/CSV.

This makes it simple to continue using MATLAB for end users that are familiar with this tool from other projects.

Learn more

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