



# UniCAN 3



## Product description

**UniCAN 3** is a microcontroller-based stand-alone data logger with up to 12 CAN bus interfaces for the acquisition of measurement data and ECU information.

With the optional features of **UniCAN 3**, you are well prepared for future measurement tasks: CSM implements the support of many CAN protocols (CCP, XCP,...) and software extensions (CANsend, CAN stimulation,...), upon request.

An internal GPS module recording position, speed and time as well as a modem for mobile communication and a WLAN module for wireless data transmission allow a wide range of applications.

## Shipping content

- ▶ Data logger UniCAN 3
- ▶ CSMuniconf configuration software (Windows 7, 8, 8.1 and 10), documentation

## Key features


CAN





- ▶ Up to 12 CAN bus interfaces, CAN FD capable
- ▶ 4 digital I/O interfaces
- ▶ Exchangeable CF card up to 64 GB
- ▶ GPS receiver with detached antenna
- ▶ LTE modem (+ UMTS / EDGE / GPRS) and WLAN module with detached antenna and Ethernet for
  - ▶ data transmission parallel to recording
  - ▶ remote maintenance (configuration & firmware updates)
- ▶ Very low power consumption (operation & stand-by)

## Accessories

- ▶ See data sheet "UniCAN Accessories"

## Technical data

Type designation	UniCAN 3
	
CAN interfaces	4 × / 8 × / 12 × CAN 2.0B High-Speed CAN (ISO11898-2:2016), max. 1 Mbit/s CAN FD capable, can be enabled via option
Digital inputs/outputs	4 × (each channel individually configurable as input or output)
USB	1 × USB 2.0 OTG
LAN	1 × Fast Ethernet 10/100 MBit/s Auto MDI-X
Storage capacity	1 × CF card slot (up to 64 GB)
<b>Available options</b>	
Hardware	
CAN FD	CAN FD support according to ISO11898-1:2015
GPS	internal GNSS module, 72 channel GPS positioning engine (+ GLONASS / BeiDou / Galileo), 10 Hz position update rate
Mobile communication <sup>1)</sup>	internal LTE modem (+ UMTS / EDGE / GPRS),
WLAN	internal WLAN module (IEEE 802.11 a/b/g/n/ac)
Data upload	transfer of raw data to server, further processing with CSMdataconv software ► <a href="#">see section „additional products“</a>
Protocols on CAN	CCP, XCP, CCP Block Read, OBD2/EOBD, J1939
Software extensions	CANsend, CAN Stimulation, Wake-on-CAN, Seed & Key (customer-specific adaptation), AUTOSAR PDU
<b>Power supply</b>	
Minimum	8 V DC (-10 %)
Maximum	32 V DC (+10 %)
Power consumption	typ. 3 W (in normal operation), max. 6.7 W (at full load)
Standby current	PowerControl OFF
w/o Wake-on-CAN	< 350 µA at 12 V
1 × Wake-on-CAN	< 450 µA at 12 V
12 × Wake-on-CAN	< 800 µA at 12 V
<b>Indicators</b>	
Front side	two-digit numerical status display for device status and error codes
Front & back side	2 multi-color LEDs each for status / network indication / card access

<b>Type designation</b>	<b>UniCAN 3</b>
<b>Housing</b>	aluminium, black coated
Weight	approx. 600 g
Dimensions (w × h × d)	approx. 109 × 45 × 158 mm
<b>Connectors</b>	
CAN	1 × / 2 × / 3 × D-SUB HD plug, 15-pole (each for 4 × D-SUB connector, 9-pin, via adapter cable)
Digital I/O	LEMO 0B, 7-pole, code A
Power supply, Ethernet	LEMO 0B, 7-pole, code B
USB	Micro-AB USB connector
GPS	FAKRA connector, code C, blue
Mobile communication	FAKRA connector, code D, bordeaux
WLAN	RP-SMA connector
<b>Operating and storage conditions</b>	
Operating temperature range <sup>1)</sup>	-40 °C to +80 °C
Relative humidity	max. 95 % (non-condensing)
Storage temperature	-40 °C to +85 °C
<b>Certification</b>	 PTCRB
<b>Conformity</b>	  

<sup>1</sup> The operating temperature of UniCAN 3 versions with integrated modem should not drop below -30 °C. The modem may otherwise not start up reliably.

## additional products

### CSMdataconv

The software **CSMdataconv** is installed on a Windows® server. The **UniCAN 3** data logger then delivers the recorded measurement data, e.g. via mobile data transmission (mobile communications or WLAN) to an FTP or SFTP server which the software can access. **CSMdataconv** then converts the data into the desired format, e.g. MDF or CSV, and makes it available for analysis and post-processing.





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