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 for recording the position as well as a modem for mobile communication and a WLAN module for wireless data transmission allow a wide range of applications.

Key features

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

Shipping content

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

Accessories

- See data sheet “UniCAN Accessories”

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Technical data

Type designation	**UniCAN 3**
	
CAN interfaces	4 × / 8 × / 12 × CAN 2.0B High-Speed CAN (ISO11898-2:2016), max. 2 Mbit/s CAN FD for CAN 5-8 [1)]
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)

Available options	
Hardware	
GPS	internal GNSS module, 72 channel GPS positioning engine (+ GLONASS / BeiDou / Galileo), 10 Hz position update rate
Mobile communication [2)]	internal LTE modem (+ UMTS / EDGE / GPRS), approval for the U.S. market (FCC, PTCRB) in progress
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 ▶ see section „additional products“
Protocols on CAN	CCP, XCP, CCP Block Read, OBD2/EOBD, J1939
Software extensions	CANsend, CAN Stimulation, Wake-on-CAN [1)], Seed & Key (customer-specific adaptation)

Power supply	
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

Indicators	
Front side	two-digit numerical status display for error codes
Front & back side	2 multi-color LEDs each for status / network indication / card access

Type designation	**UniCAN 3**
Housing	aluminium, black coated
Weight	approx. 600 g
Dimensions (w × h × d)	approx. 109 × 45 × 158 mm
Connectors	
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
Operating and storage conditions	
Operating temperature range [2)]	-40 °C to +80 °C
Relative humidity	max. 95 % (non-condensing)
Storage temperature	-40 °C to +85 °C
Certification	PTCRB *(in progress)*
Conformity	CE FC *(in progress)*

[1] Hardware prepared, please contact sales for further information.

[2] 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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