2D Debus & Diebold Meßsysteme GmbH Alte Karlsruher Straße 8 • D-76227 Karlsruhe
Tel: +49 (0) 721 944 85-0 • Fax: +49 (0) 721 944 85-29 • E-Mail: mail@2d-datarecording.com

LG-CANStick2C_V3-000 USB Stick CAN Logger

Key Features

- Sticklogging features
  - Stores data directly on 256 GB USB 3.0 Stick with > 600 kByte/s
  - Supports USB Stick hot swap
  - Optional CAN-Streamlogging: Create measurements with "unlimited" number of OFFLINE CAN channels & Streamreplay (*OPT-008*)

- CAN-bus features
  - 2 CAN lines up to 2 Mbit/s each
  - 32 ONLINE CAN channels can be recorded and send to other CAN-devices with sampling rate up to 200 Hz each (online CAN-DB/DBC-file decoding)
    - Optional up to 128 ONLINE CAN channels (*OPT-001*)
    - Optional CAN channels sampling rate of up to 2000 Hz (*OPT-002* & OPT-*003*)
  - Optional with CAN/CAN-FD: XCP/CCP option with "Listen only" Mode (*OPT-005*)

- 4 analog input channels – up to 1000 Hz sampling rate each
  - 1 Input can be switched to a Hybrid Input
  - Optional increased sampling rate of analog inputs (*OPT-010*)

- 1 frequency input channels (up to 50kHz)
- 24 Math (CALC) channels for online calculation
- GPS/GNSS data via CAN
- Optional with built-in 6DoF-IMU (*OPT-009*)

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Available options (all options can be combined freely!)

OPT-001	Additional 32 ONLINE CAN channels (max. total 128 CAN channel)
OPT-002	Increased max. sampling rate of **1000 Hz** (for **all** channels)
OPT-003	Increased max. sampling rate of **2000 Hz** (for **all** channels)
OPT-004	Full ONLINE channel Routing/Interface
OPT-005	CAN/CAN-FD/Ethernet - CCP/XCP Protocol (Online Decoding)
OPT-008	**CAN-Streamlogging**: Create measurements with "unlimited" number of OFFLINE CAN channels & Streamreplay
OPT-009-A	Integrated 6 DoF IMU with individual range selection for Acc (±2/4/8/16 G) and Gyros (±250/500/1000/2000 °/s)
OPT-009-B	Integrated 6 DoF IMU with individual range selection for Acc (±4/8/16/30 G) and Gyros (±500/1000/2000/4000 °/s)
OPT-010	Increased sampling rate of **analog** channels to 16000 Hz each
OPT-012	Waterproof USB Stick incl. Connectors/connector cables

Technical specifications

CAN characteristics		
ONLINE CAN channels		32
optional		Up to 128
CAN Lines		2
CAN powered		yes
Baud rate	kBd	125 /250 /500 /1000/2000
Sampling rate CAN channels	Hz	200
optional	Hz	Up to 2000
Storage characteristics	USB	supports 2.0/3.0
Max USB Stick size	GB	256
format		xFAT32
Max block size	GB	2
Analog input channels		
Single ended inputs		4
Analog Input Filter (6dB)	Hz	4400
Resolution	bit	16
Input voltage range	V	0 to 5
Internal sampling rate analog channels	Hz	32000
Sampling rate analog input channels	Hz	Up to 16000
Frequency input channels		
input		2
max. frequency at Dig 1	kHz	<100
max. frequency at Dig 2	kHz	<4
3 Axis acceleration (optional)		
Range switchable with 3 axes	G	±2/±4/±8/±16/±30
Error of linearity	FS	<1 %
Lowpass filter (programmable)	Hz	5 to 250
Sampling rate	Hz	1000
3 Axis yaw-rate (optional)		
Sensitivity	°/s	±250/±500/±1000/ ±2000/±4000
Error for linearity	FS	<1%
Lowpass filter (programmable)	Hz	5 to 250
Sampling rate	Hz	1000

Mechanical characteristics		
Housing Material		Aluminum
Dimensions	mm	70x 40x 13
Weight (cable included)	g	105
Cable Interface line		Deutsch IMC 200,12PM
Type		12 x AWG24
Length	mm	150
Cable USB line		USB Type A, socket
Length	mm	500
Connection Analog/Frequency		Binder 712, 8PF
		Built in
Electrical characteristics		
Supply voltage	V	5 to 30
Current consumption @12V	mA	95
Operation mode status indicator		
LED green/red blinking		
Environmental data		
Protection class		IP67
Ambient operating range	°C	-20 to +75
Humidity	%	5 to 95
Vibration resistance		
Shock	G	40
During time period of	ms	10
Vibration tested at	G	12
Measured with	Hz	1000

Ordering information
LG-CANStick_2C_V3-000

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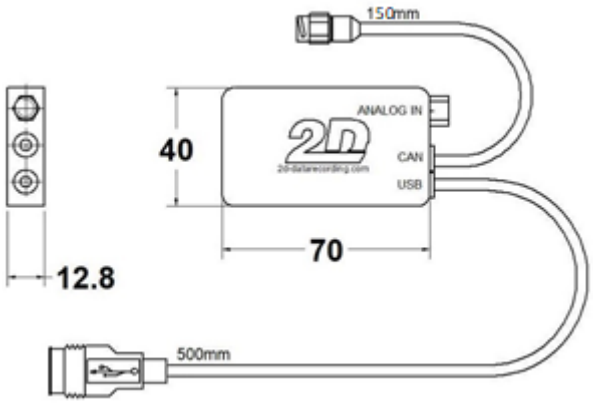
Dimensions



Connector layout — Connector type

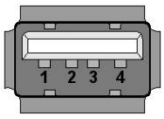
CAN line, Deutsch IMC 200, 12PM

Pin	Name	Description	Color
1	V_{ext}-Supply	Power supply 5-14V	red
2	GND	Ground	black
3	CAN-1 Hi	CAN-1 High	white
4	CAN-1 Lo	CAN-1 Low	green
5	Lap out	LAP out signal	grey
6	Dig1 [2]	Frequency input 1	**do not use**
7	CAN-2 Hi	CAN-2 High	yellow
8	CAN-2 Lo	CAN-2 Low	brown
9	AIN4 [2]	Analog 4	**do not use**
10	AIN3 / Dig 2 [2]	Analog 3 / Frequency input 2	**do not use**
11	Vext-Out	+5 to14V / Vext-Out	orange
12	+5V [2]	+5V sensor supply (max. 100mA)	**do not use**

front view

USB, Type A socket

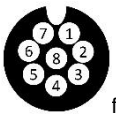
Pin	Name	Description	Color
1	USB-Power	Power supply +5V	red
2	Data -	Data line -	white
3	Data +	Data line +	green
4	GND	Ground	black



front view

Analog/Frequency input, Binder 712, 8PF

Pin	Name	Description
1	+5V	+5V sensor supply (max. 100mA)
2	GND	Ground
3	Dig1 [2]	Frequency input 1
4	Vext-Out	+5 to14V / Vext-Out
5	AIN1[2]	Analog 1
6	AIN2[2]	Analog 2
7	AIN3 / Dig 2	Analog 3 / Frequency input 2
8	AIN4[2]	Analog 4



front view

[2] Input must be used on Analog/Frequency Input connector! Otherwise the Logger may be damaged.

Connector and cable length can be modified on customer request!

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CAN DB decoding

- Every Setting change in the module creates automatically a CAN DB in ***C:/ProgramData/Race20xx/System/CAN-DB***

USB Stick Compatibility

Proper functioning of the logger is only guaranteed with USB Sticks sold by 2D!

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