2D DATA RECORDING
2D Debus & Diebold Messysteme GmbH
Bannwaldallee 60 • 76185 Karlsruhe
Tel: +49 (0) 721 944 85-0 • E-Mail: support@2d-datarecording.com

LG-CANStick2C_V2-000 USB Stick CAN Logger

Key Features

- Sticklogging features
  - Stores data directly on 128 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*)

- 2 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 and Serial (RTK ready)
- Optional with built-in 6DoF-IMU (*OPT-009*)

Available options (all options can be combined freely!)

OPT-000	Serial GPS/GNSS mouse connectivity
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

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!

Technical specifications

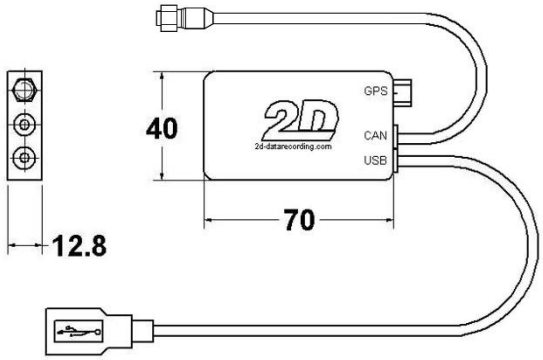
CAN characteristics		
ONLINE CAN channels		32
optional		Up to 128
CAN Lines		2
CAN powered		yes
Baud rate	kBd	125 /250 /500 /1000/2000
Sampling rate CAN channels	Hz	200
optional	Hz	Up to 2000
Storage characteristics	USB	supports 2.0/3.0
Max USB Stick size	GB	128
format		xFAT32
Max block size	GB	2
Analog input channels		
Single ended inputs		2
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
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		
Aluminum housing		
Dimensions	mm	70x 40x13
Weight	g	105
Cable CAN line		
Wire cross section		12 x AWG24
Type		Metrofunk
Length	mm	200
Connector type CAN		Deutsch IMC 200, 12PM
Cable USB line		
Length	mm	500
Connector type		USB Type A, socket
Connection GPS/serial		
Connector type		Binder 712, 4 PF
Electrical characteristics		
Supply voltage	V	5 to 30
Current consumption w/o. GPS	mA	<140
Current consumption with GPS	mA	<180
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_V2-000

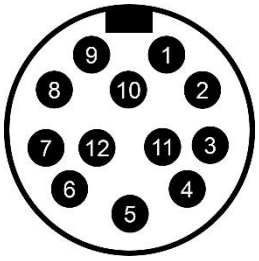
Dimensions



Connector layout — Connector type

CAN-1 line, Deutsch IMC 200, 12PM

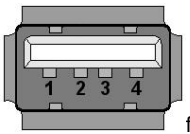
Pin	Name	Description	Color
1	Vext	Power supply 8-14V	red
2	BGND	Board ground	black
3	CAN-1 Hi	CAN-1 High	white
4	CAN-1 Lo	CAN-1 Low	green
5	Lap out	LAP out signal	grey
6	KL15	KL15/switched power	blue
7	CAN-2 Hi	CAN-2 High	yellow
8	CAN-2 Lo	CAN-2 Low	brown
9	AIN2	Analog 2	white/black
10	AIN1	Analog 1	white/brown
11	+12V	+12V/VBat out	orange
12	+5V	+5V sensor supply	purple



front view

USB, Type A socket

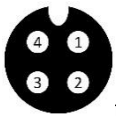
Pin	Name	Description	Color
1	VCC	Power supply +5V	red
2	Data -	Data line -	white
3	Data +	Data line +	green
4	GND	Ground	black



front view

GPS/Serial, Binder 712, 4PF

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



front view

Connector and cable length can be modified on customer request!