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## Key Features

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- 24 math channels for online calculation
- Stores CAN Bus data directly to 128GB USB3.0 Stick or internal 32MB memory
- Supports USB Stick hot swap
- Developed for ultimate Data access speed via use of USB3.0 Sticks
- with a storage rate of up to 400kByte/s
- 4 analog input channels  
→ 1 Input can be switched to a Hybrid Input
- 1 frequency input channel (up to 50kHz)
- CAN DB decoding

## Options:

- recording rate of analog input channels up to 16000 Hz per channel
- 6DoF IMU with  $\pm 16G$  or  $\pm 30G$  Range
- CAN: XCP/CCP option / "Listen only" Mode

## Technical specifications

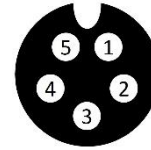
<b>CAN characteristics</b>			<b>Mechanical characteristics</b>		
CAN channels		Up to 128	Housing Material	Aluminum	
CAN Lines		2	Dimensions	mm	70 x 50 x 15
CAN powered		yes	Weight (cable included)	g	115
Baud rate	kBd	125 / 250 / 500 / 1000 / 2000	CAN 1 Interface	Binder 712 5PF	
Sampling rate CAN channels	Hz	up to 200	CAN 2 Interface	Binder 712 5PM	
optional	Hz	up to 1000	Cable USB Stick	USB Type A, socket	
			Length	mm	200
<b>Storage characteristics</b>			Analog/Frequency Input	Binder 712, 8PF	
Max USB Stick size	USB	supports 2.0/3.0	Serial GPS Input	Binder 712, 4PF	
format	GB	128			
Max block size		xFAT32			
	GB	2			
<b>Analog input channels</b>			<b>Electrical characteristics</b>		
Single ended inputs		4	Supply voltage	V	6 to 18
Analog Input Filter (6dB)	Hz	4400	Current consumption @12V	mA	95
Resolution	bit	16			
Input voltage range	V	0 to 5			
Internal sampling rate analog channels	Hz	32000			
recording rate analog inputs	Hz	up to 16000			
<b>Frequency input channels</b>			<b>Operation mode status indicator</b>		
max. frequency at Freq 1	kHz	<50	LED green/red blinking		
max. frequency Hybrid	kHz	<4			
<b>3 Axis acceleration (optional)</b>			<b>Environmental data</b>		
Range switchable with 3 axes	G	±2/±4/±8/±16/±30	Protection class	IP67	
Error of linearity	FS	<1 %	Ambient operating range	°C	-20 to +75
Lowpass filter (programmable)	Hz	5 to 250	Humidity	%	5 to 95
Sampling rate	Hz	1000			
<b>3 Axis yaw-rate (optional)</b>			<b>Vibration resistance</b>		
Sensitivity	°/s	250 / 500 / 1000 2000 / 4000	Shock	G	40
Error for linearity	FS	<1%	During time period of	ms	10
Lowpass filter (programmable)	Hz	5 to 250	Vibration tested at	G	12
Sampling rate	Hz	1000	Measured with	Hz	1000
			<b>Ordering information</b>		
			LG-CANStick2C_V4-000		

## Connector layout

## Connector type

### CAN 1, Binder 712, 5PF

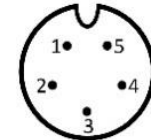
Pin	Name	Description
1	CAN 1 H	CAN 1 high
2	CAN 1 L	CAN 1 low
3	GND	Ground
4	n.c.	Not connected
5	Vext	Power (6 to 18V)



front view

### CAN 2, Binder 712, 5PM

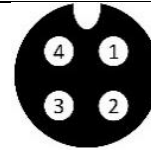
Pin	Name	Description
1	CAN 2 H	CAN 2 high
2	CAN 2 L	CAN 2 low
3	GND	Ground
4	KL15	KL15/switched power
5	Vext	Power (6 to 18V)



front view

### GPS, Binder 712, 4PF

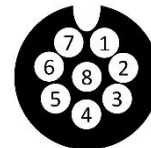
Pin	Name	Description
1	TxD	Transmit Data
2	RxD	Receive Data
3	GND	Ground
4	VCC	GPS Power Supply +5V



front view

### Analog / Frequency input, Binder 712, 8PF

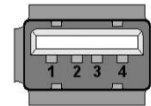
Pin	Name	Description
1	VCC	+5V Sensor supply
2	GND	Ground
3	FREQ1	Frequency input 1
4	+12V	+12V Sensor supply
5	AIN1	Analog input 1
6	AIN2	Analog input 2
7	AIN3	Analog input 3 / Hybrid Input
8	AIN4	Analog input 4



front view

### USB, Type A, socket

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



front view

## CAN DB decoding

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

## Available Options

Order code	Option
LG-CANStick_OPT-001	CANStick Logger - Option +32 CAN channels
LG-CANStick_OPT-003	CANStick Logger - Option max. recording frequency 1000 Hz per Channel
LG-CANStick_OPT-005	CANStick Logger - Option CCP/XCP-Protocol
LG-CANStick_OPT-007	CANStick Logger - Internal Ring Buffer CANStick Logger - Option 6 DoF IMU
LG-CANStick_OPT-009	A) Individual range selection for accelerometers ( $\pm 2/4/8/16G$ ) and gyros ( $\pm 250/500/1000/2000^\circ/s$ ) B) Individual range selection for accelerometers ( $\pm 4/8/16/30G$ ) and gyros ( $\pm 500/1000/2000/4000^\circ/s$ )
LG-CANStick_OPT-010	CANStick Logger - Option Rec. Freq max. 16000 Hz per analog channel