



# A-CAN-Dongle-V2

## Analog to CAN converter

## 8 Analog + 2 Digital Inputs

### Analog inputs

- range
- resolution 16 bits
- Pull-up
- Accuracy

0 to 5 V or  $\pm 10V$  \*<sup>1</sup>  
 0.076 or 0.305 mV/bit  
 Internal  
 0.5 %FS (-40 to +110°C)  
 2 %FS (+110 to +125°C)

### Filter (optional) \*<sup>2</sup>

- type
- Cut off frequency

Low pass linear phase 5<sup>th</sup> order  
 Programmable from 15 to 250 Hz

\*<sup>1</sup> For  $\pm 10V$  input range, filter option is not available

\*<sup>2</sup> If filter option is used:

- the speed inputs are disabled
- pin 11 and 12 must not be connected
- frame Tx3 not sent

### Digital inputs

- square wave level
- Pull up to 5V
- Max frequency \*<sup>3</sup>
- Tops

0 to 5 V or NPN open collector  
 1 M $\Omega$   
 8 KHz  
 1 to 100 Tops/rev

\*<sup>3</sup> Check max frequency for digital inputs as below:  
 Ex1: 8000rpm with 48 tops/rev  $\rightarrow 8000/60 \times 48 = 6.4$  KHz.  
 Ex2: 360km/h with 2m wheel circumference and  
 100 tops/rev  $\rightarrow 360/3.6 / 2 \times 100 = 5$  KHz.

### Wheel Speed \*<sup>2</sup>

- range
- Circumference
- Wheel tops/rev.
- resolution

0 to 500 km/h - 0 to 500 mph  
 300 to 5000 rev/mm  
 1 to 100 top/rev  
 0.01 kmh/bit - 0.01 mph/bit

### Engine Revs

- range
- Engine tops/rev.
- resolution

0 to 20000 rpm  
 1 to 100 top/rev  
 1 Rpm/bit

### Analog sampling and speed calculation/channel

500 Hz

### CAN bus 2.0 A or B

120  $\Omega$ , not installed (on demand)

### Output data

16 bits per channel

### Baud rate

125 k to 1Mbps

### Frequency

1 Hz to 500 Hz, request mode  
 500Hz with baudrate 1Mbps only

### Supply voltage

6 to 16 V

### Supply current

35 mA

### Dimensions

48 x 30 x 33 mm

### Material

Aluminum

### Weight

45 g

### Protection

IP67

### Vibration test

20 Gpp 5'

### Operating temp

-40 to +125°C

### Storage temp

-40 to +125°C

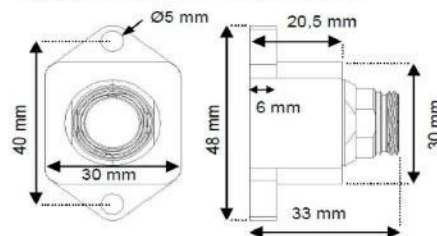
Function / Color	Description	Pin
Supply	Supply (6 to 16 V)	1
	GND*	2
Analog Inputs	Channel 1	3
	Channel 2	4
	Channel 3	5
	Channel 4	6
	Channel 5	7
	Channel 6	8
	Channel 7	9
	Channel 8	10
Digital Inputs	Wheel Speed	11
	Engine Speed	12
CAN	CAN HIGH	13
	CAN LOW	14
manufacturer reserved	do not connect	15
Sensor supply	Protected supply (6 to 16 V)	16
	5V	17
	GND*	18
	GND*	19

\* Ground pins are internally connected

### Standard version:

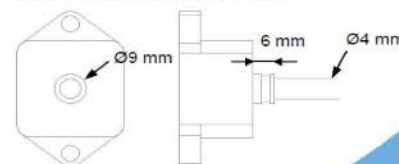
Connector: LEMO HES.2M.319.XLDP

Mating connector: LEMO FGS.2M.319.XLM



### □ Cable option:

Cable: 19 AWG 28 RW-200-E-3/16



In the interest of continuous product improvement, we reserve the right to alter without prior notice the specific colours and features described in this document.

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