

## RPM-8000-OBD2

RPM and SPEED measurement in cars  
via CAN “On-Board Diagnostics” interface  
with analog and pulse outputs



- No sensor installation required
- Direct reading of RPM and SPEED
- 30 pulse / engine revolution
- 16 pulse / km/h
- Analogue and pulse output
- Display of RPM and SPEED
- Max. 10000 RPM and 250 km/h
- Universal 8-28VDC supply

RPM-8000-OBDD2 offers a discerning solution for automotive RPM measurement without an additional sensor. The information will read direct from the CAN-OBDD2- interface (**DIN 15765 CAN, 11/29Bit ID, 250/500 kBaud**). The instrument is simply connected to the standard OBDD2 connector and the RPM or SPEED is shown directly on the LCD display. You even have the choice to output the data as an analog voltage (0-5V) or as a digital pulse sequence (TTL).

**Technical details:**

Input source CAN-OBDD2 Interface (DIN 15765 CAN, 11/29Bit ID, 250/500 kBaud)

Supply voltage via CAN-OBDD2 connector

Current consumption 80 mA at 12V

RPM Analog output: 0-5V, 0.5 V per 1000 RPM, max. 10000 RPM  
 max. delay 50 ms (car timeout), min. delay 1ms, typ. delay 4ms  
 accuracy 0.5 %  
 output impedance 2 ohm 10 mA

RPM Digital output: 30Hz per engine revolution, max. 10000 RPM  
**(LCD can only displays max. 9999 RPM!)**  
 RPM frequency divider 1:1, 1:2, 1:4, 1:8 or 1:16  
 1:1 = 5000Hz at max. 10000 RPM  
 1:2 = 2500Hz at max. 10000 RPM  
 1:4 = 1250Hz at max. 10000 RPM  
 1:8 = 625Hz at max. 10000 RPM  
 1:16 = 312,5Hz at max. 10000 RPM  
 TTL level 0 and 5 V  
 output impedance 130 ohm  
 accuracy 0.5 %  
 max. delay 0.5 – 2 ms  
 jitter 0.1 – 1 %

SPEED Analog output: 0-5V, 0.02 V per km/h, max. 250Hz  
 max. delay 50 ms (car timeout), min. delay 1ms, typ. delay 4ms  
 accuracy 0.5 %  
 output impedance 2 ohm 10 mA

SPEED Digital output: 16Hz/km/h max. 250km/h = 4000Hz  
 TTL level 0 and 5 V  
 output impedance 130 ohm  
 accuracy 0.5 %  
 max. delay 50 ms (car timeout), min. delay 1ms, typ. delay 4ms  
 jitter 0.1 – 1 %

Synchronization time 1 – 2 seconds

Displays: graphic display: Divider, numeric and graphic RPM and SPEED  
 LED green Power ON  
 LED green/red RPM supported over CAN YES / NO  
 LED green/red SPEED supported over CAN YES / NO

Rotary switch: frequency divider 1:1, 1:2, 1:4, 1:8 or 1:16

The RPM measuring range of the analog output is 0.5 Volt per 1000 RPM. The standard TTL frequency output of 30Hz per engine revolution can be scaled with a frequency divider of 1:1, 1:2, 1:4, 1:8 or 1:16.

The SPEED measuring range of the analog output is 0.020V per km/h (0-5V = 0-250km/h) The TTL frequency output is 16Hz/km/h max. 250km/h.

Connectors:

- BNC OUT for analog RPM and SPEED
- BNC OUT for TTL frequency RPM and SPEED
- OBDD2 Plug for INPUT with 3m cable
- pin connection:
  - 4 GND Car
  - 5 GND Signal
  - 6 CAN-H
  - 14 CAN-L
  - 16 Batterie (+)



Dimensions: 150 x 100 x 30mm  
 Weight: 0.5kg without connection cable  
 Material: anodized aluminum  
 Operating temperature: -5°C to +70°C  
 Storage temperature: -20 to +80°C  
 Humidity: 20 – 80%  
 Vibrations: 5g military standard 810C curve C  
 Shock: in all directions 100 g

