

KMS

KMS Speed sensor → CAN converter 4-channel

Part nr: 01-01-01-0012



Kronenburg Management Systems

This document contains detailed information about the KMS Speed sensor → CAN converter 4-channel. Additional information, user manuals, wiring examples and software can be found on our website: <http://kms.vankronenburg.nl> or on the software CD included with the ECU.

The KMS Speed sensor to CAN converter, converts the signals of up to four sensor inputs (hall and inductive) onto the CANbus. This way the four speed inputs, speed difference and vehicle speed (lowest speed of four speed inputs) can be monitored on the CAN display and it allows traction control, speed limiters, speed dependent boost and ignition control to be added to the KMS MD35 functions.

Contents of the package

- 1 Speed sensor → CAN converter 4-channel
- 1 KMS CAN extension hub 2m
- 1 Instruction manual

Installation of the Speed sensor → CAN converter 4-channel

The KMS Speed sensor → CAN converter 4-channel is splash waterproof. However it's best to place it in a dry place where temperatures don't exceed 65°C.

Warning: don't place the Speed sensor → CAN converter and wires near any 'high powered' cables (sparkplug leads, etc), because of electrical interference.

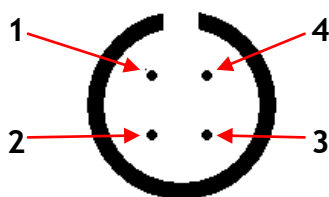
There are wires coming out on both sides of the Speed sensor → CAN converter. The connection of these wires and connectors is as follows:

- Male black 4-pole connector (binder type): Communication to CAN bus
- Orange wire: 1st speed sensor (Left front side of vehicle seen from drivers position)
- Green wire: 2nd speed sensor (Right front)
- Purple wire: 3rd speed sensor (Left rear)
- Pink wire: 4th speed sensor (Right rear)
- Yellow wire: optional 5V sensor supply (Necessary when using standalone hall-sensor)
- Black wire: optional sensor ground (Necessary when using standalone hall/inductive sensor)

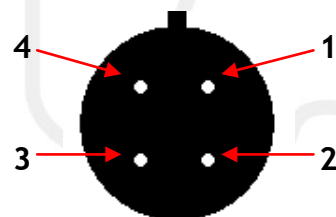
The wiring of the black 4-pole CAN-bus connectors is as follows:

Pin nr	Colour	Function
1	Red	12V supply
2	Black	Ground
3	White	Can High (+)
4	Green	Can Low (-)

Front of the male CAN connector:



Front of the female CAN contra connector:



The sensor wires (orange, green, purple and pink) can be connected to the sensor signals of both hall and inductive sensors, for example on the ABS unit or directly on the sensors. The 5V sensor supply and ground can be used in case the sensor supply and ground have been removed or are not available.

Users can put a switch in the voltage supply of the speed sensors or KMS speed sensor -> CAN converter, to enable them to switch the traction control on and off. When a switch is placed in the voltage supply of the sensors, it's possible to disable all sensors except for one. This way traction control will be switched off, but users will still be able to display the speed and all speed dependable functions (such as speed limiters and speed dependent boost/ignition control) will stay active.

Note: It's not necessary to connect all four speed sensors in order to use traction control. At least two speed sensors (1st sensor on the front and 3rd sensor on the rear) must be used to enable traction control as a function on the KMS MD35 ECU. When using only one speed sensor, users are able to use the speed dependable functions (speed limiters and speed dependent boost/ignition control). The signal wires that are not used must be connected to a ground (for example to the sensor ground, vehicle ground, etc.) to prevent interference.

After installing/wiring the Speed sensor → CAN converter 4-channel, the KMS management software must be set up correctly. Refer to the instructions in the management software manual for more information.