AiM Infotech

Inductive Contrinex
car speed sensor

Release 1.00

1
Introduction

This datasheet explains how to install and use inductive Contrinex car speed sensor, a non contact device that needs a metallic trigger to pass in front of it.

The sensor is available with both metallic and plastic ending Binder connector The sensor **part number** is:

* Sensor ending with Binder 712 (metallic) connector: **X05SNVDW712**
* Sensor ending with Binder 719 (plastic) connector: **X05SNVDW0**

It fits the wheel speed measurement and needs an accurate installation. This is why we suggest you to address to a specialized workshop.

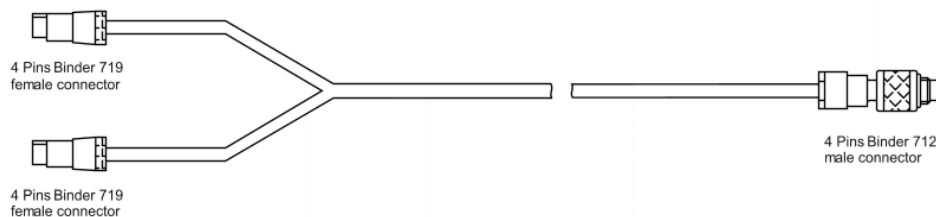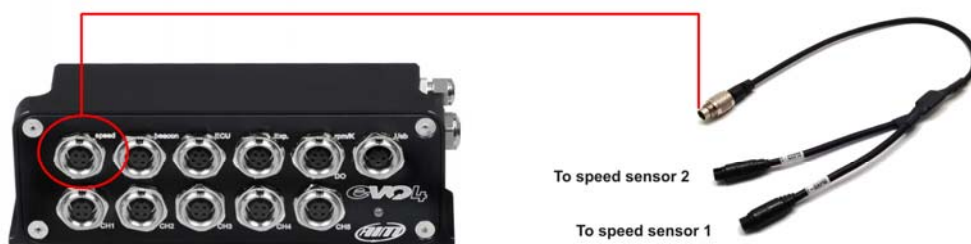# 2
Installation

Install the sensor using a bracket and:
* ensure that distance between sensor and gear tooth is in a 0.5 – 1.0 mm (0-0.09 inches) range
* fix the sensor to the bracket
* connect the sensor to AiM device

The sensor measure range is 0–2,5 mm (0.1-0.07 inches). Optimum sensor performance depends on the following variables to be considered in combination: trigger building material, geometry, speed, metallic trigger /sensor distance and magnetic material in close proximity.
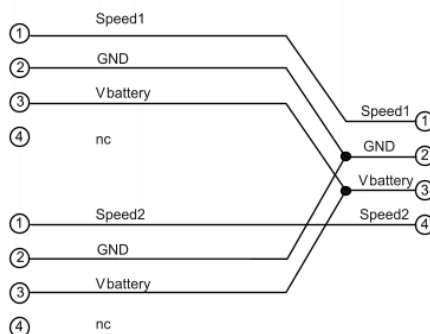
2.1
Specificity of AiM loggers

AiM loggers can support one or more speed sensors.

- **MXL2**, **MXG**, **MXS** and **EVO5** can support up to four speed sensors one of which can be connected to the standard harness (**V02573010**) while the other three need the optional harness (**V02573020**).
- **MXS Strada** can support one speed sensor only on the optional harness (**V02573220**)
- **EVO4** and **EVO4S** can support up to two speed sensors that need to be connected to a dedicated connector, labelled Speed. To connect both speed channels you need an optional split cable as the one shown here below on the right ;its part number is: **V02549030**. Below is construction scheme.

MXL Strada/**Pista** have one speed channel only.

MXL Pro05 has four speed channels that needs to be connected to the following optional cables:
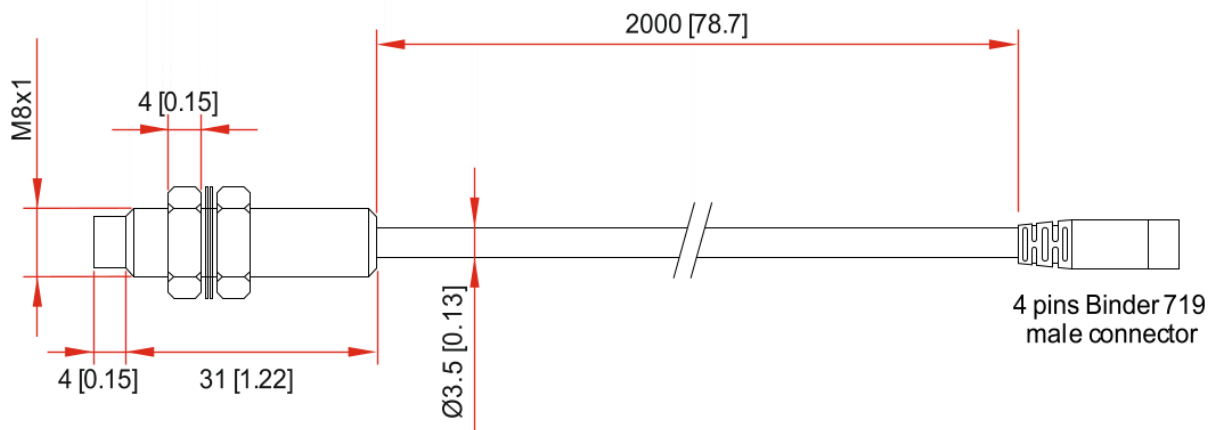
- part number **V02554200** for speed 1 and 2
- part number **V02554240** for speed 3 and 4.

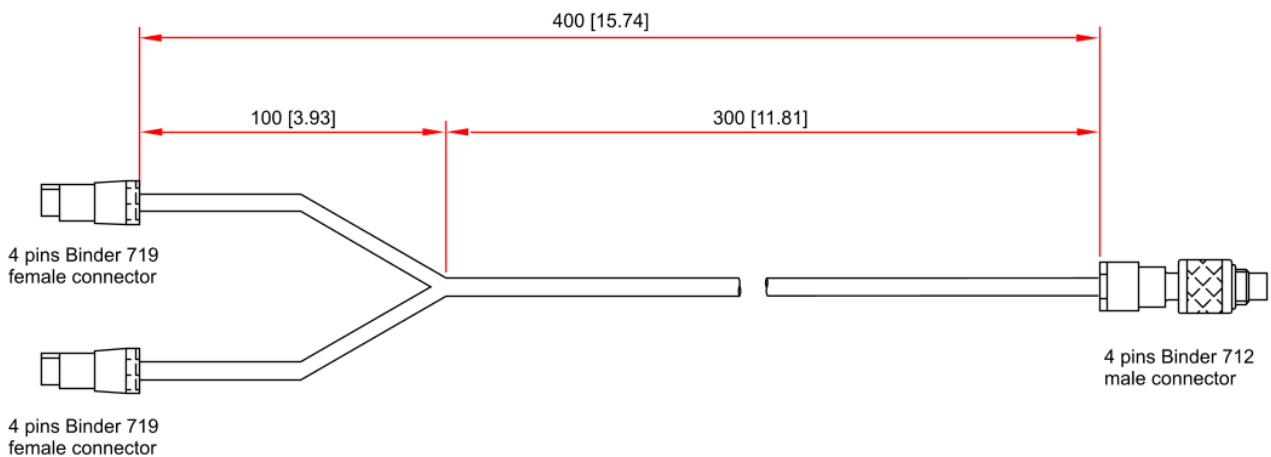All harness are labelled and the sensor is to be connected to the cable labelled "Speed".

3
Dimensions, pinout and technical characteristics

The drawings here below shows:

- sensors dimensions in mm [inches].

- dimensions of the speed split cable needed to connect two speed sensors to the only **EVO4** and **EVO4S** available speed connector in mm [inches].

The speed sensor comes with a cable ending with a 4 pins Binder 719 (plastic) or 712 (metallic) male connector. The table below shows the connector – solder termination view – on the left and its pinout on the right.

Binder 719 connector pin	Function
1	Speed
2	GND
3	V battery
4	Not connected

Car speed sensor electrical characteristics are:
- power supply voltage: 10-30 VDC
- sensibility distance: from 0.5 to 2,5 mm (from 0.007 to 0.07 inches)

Car speed sensor mechanical characteristics are:
- sensor thread: M8
- operating temperature range: from – 25 to +70 °C (from -13 to 158 °F)
- Cable length: 200 mm (3.14 inches)
- Waterproof: IP67

5
Extension cables

The most popular sensor is the one ending with a plastic (719) Binder connector and comes with a 200 mm cable and optional extension cables are available with standard length from 0,5 to 3m; specific length extension cables are also available.
Extension cable part number changes according to their length and to the device the sensor has to be connected to.

To connect sensor ending with plastic Binder connector with:
• Channel Expansion
• EVO4S
• EVO4.

Part number:
V02PCB05BTXG – cable length: 500mm
V02PCB10BTXG – cable length: 1000mm
V02PCB15BTXG – cable length: 1500mm
V02PCB20BTXG – cable length: 2000mm
V02PCB25BTXG – cable length: 2500mm
V02PCB30BTXG – cable length: 3000mm

To connect sensor ending with plastic Binder connector with:
• EVO4/split cable
• MXL2
• MXG
• MXS
• MXS Strada
• MXL Pista/Pro

Part number:
V02PCB05B – cable length: 500mm
V02PCB10B – cable length: 1000mm
V02PCB15B – cable length: 1500mm
V02PCB20B – cable length: 2000mm
V02PCB25B – cable length: 2500mm
V02PCB30B – cable length: 3000mm

To connect sensor ending with metallic Binder connector with:
• Channel Expansion
• EVO4S
• EVO4.

Codici prodotto:
V02552620 – lunghezza cavo: 500mm
V02552630 – lunghezza cavo: 1000mm
V02552640 – lunghezza cavo: 1500mm
V02552650 – lunghezza cavo: 2000mm
V02552668 – lunghezza cavo: 2500mm
V02552620 – lunghezza cavo: 3000mm