

AiM Infotech

## Rear speed wheel sensor for kart

Release 1.02

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# 1

## Introduction

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AiM devices can measure the wheel speed using a non-contact sensor that needs a metallic trigger to pass in front of it.

The sensor **part number** is: **X05SNVB301**

**Warning:** this sensor can only be connected to MyChron5 through MyChron Expansion (part number **X08MYEXUCS**)

To better detect the speed AiM strongly recommends to use an optional rear axle collar that already includes a magnet. Different diameter collars are available. Their part numbers are:

- Rear axle collar with 30mm diameter: **LCL552190**
- Rear axle collar with 32mm diameter: **LCL552180**
- Rear axle collar with 40mm diameter: **LCL552160**
- Rear axle collar with 45mm diameter: **LCL552200**
- Rear axle collar with 50mm diameter: **LCL552170**

# 2

## Installation

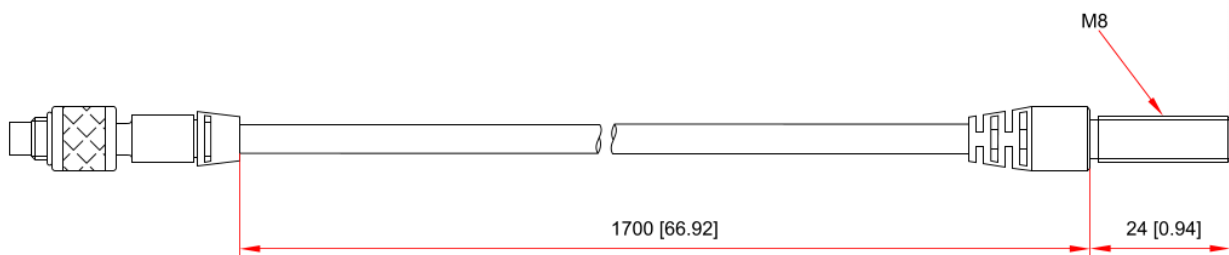
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- Install the sensor using a bracket;
- install the collar on the kart rear axle and ensure the distance between the sensor and the collar magnet is between 8 and 20 mm
- connect the sensor to AiM device.

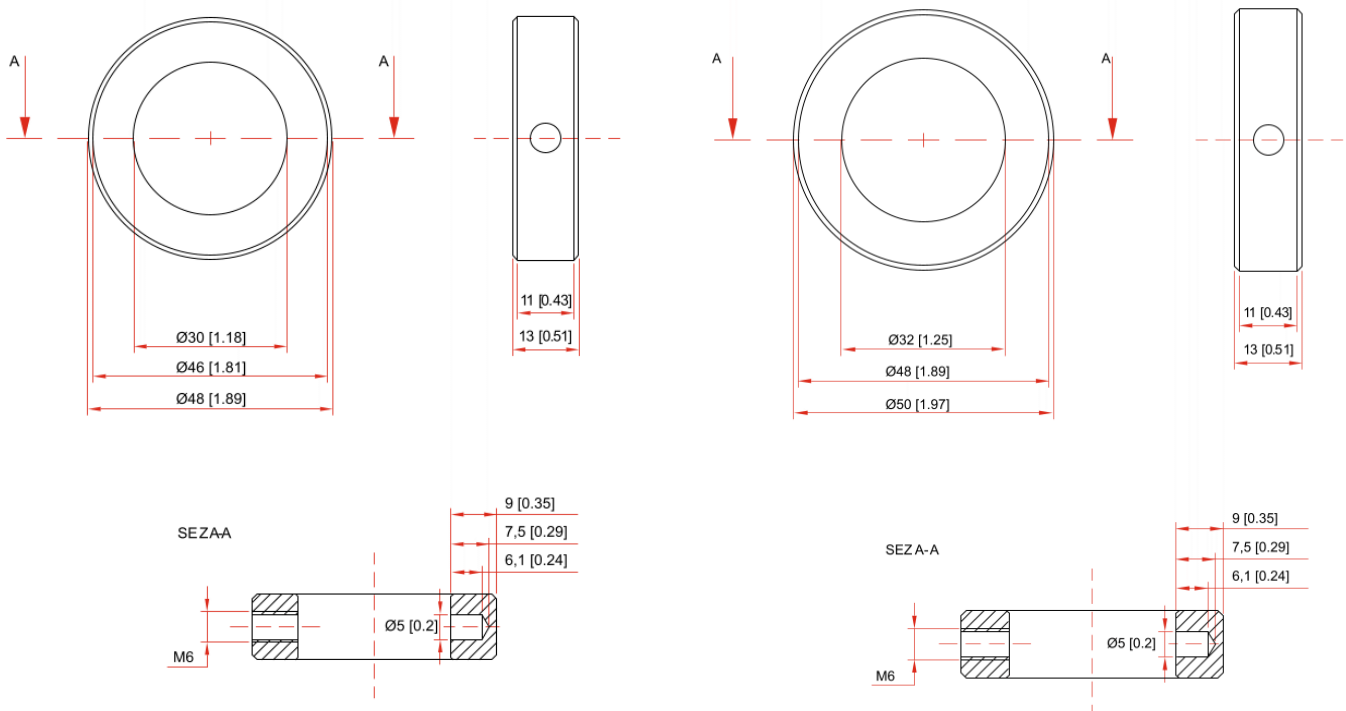
### 3

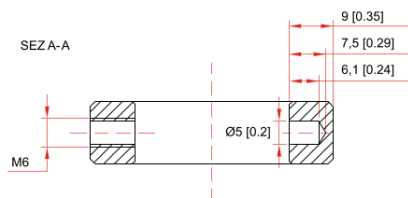
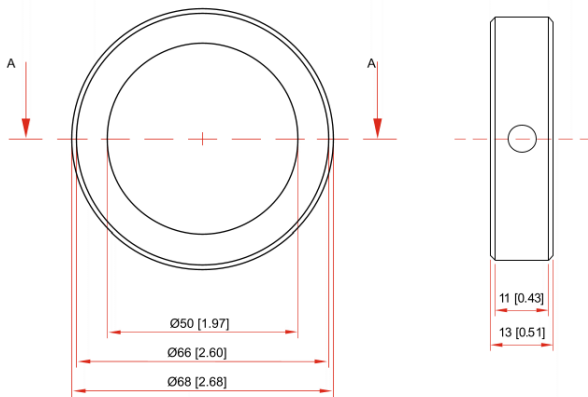
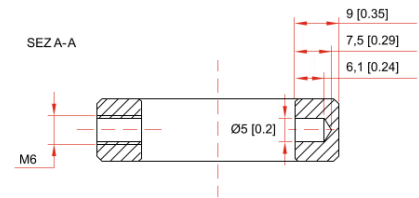
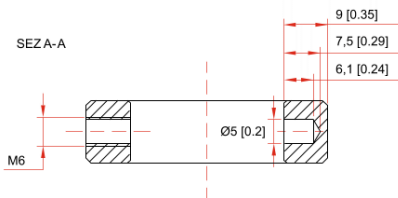
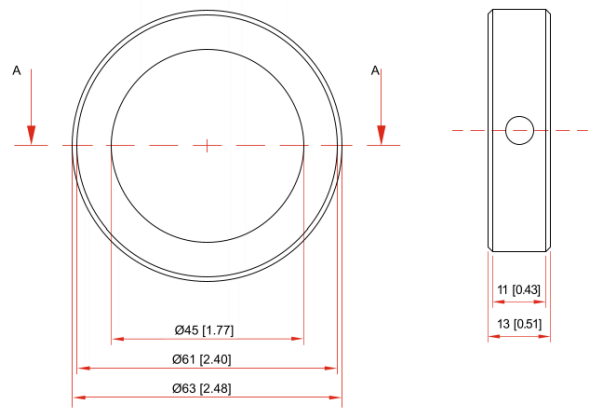
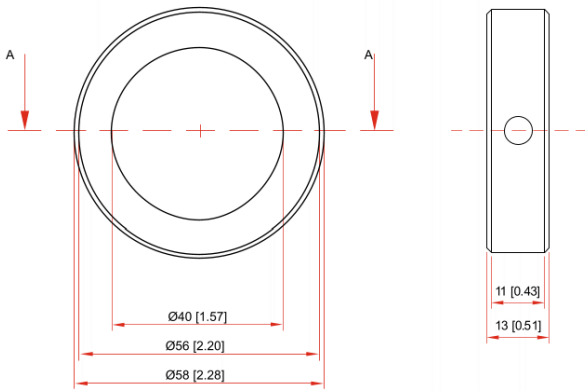
## Dimensions, pinout and technical characteristics

The drawings here below shows the sensor dimensions in mm [inches].

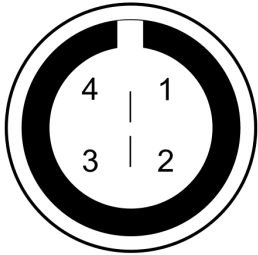


Here below are collars dimensions in mm [inches] from the smallest to the biggest.





The speed sensor is cabled with a 4 pins Binder 712 male connector. The table below shows the connector – solder termination view – on the left and its connection table on the right.



Binder connector pin	Function
1	Speed
2	GND
3	V battery
4	n.c.

Sensor **electrical characteristics:**

- power tension: 6-24 VDC
- power supply: 13.5 mA
- output signal type: pulse 0-5 volt
- max current output: 20 mA
- max operating frequency: 100 kHz
- max sensibility distance: 20 mm
- recommended distance: 10 mm
- number of pulses for wheel revolution: 1

Sensor **mechanical characteristics:**

- operating temperature range: from – 20 to +85 °C
- cable length: 1700 mm

## 4

# Extension cables

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The sensor comes with a 1700 mm cable and standard length extension cables from 0,5m to 3m are available; specific length extension cables are also available on request.

Extension cables part number changes according to their length.

Extension for connection with:

- MyChron Expansion

Par numbers:

**V02552620** – cable length: 500mm

**V02552630** – cable length: 1000mm

**V02552640** – cable length: 1500mm

**V02552650** – cable length: 2000mm

**V02552660** – cable length: 3000mm

