

## SD-V01M8-000

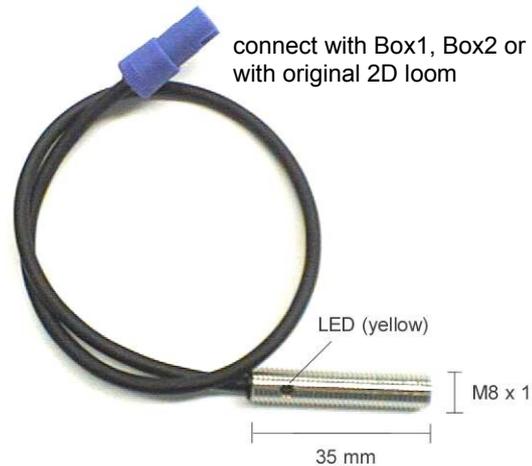
## Inductive speed sensor

### Function

- Sensor reacts to crossing metal parts (e.g. screws or parts of the brake disc)
- Induction signals are measured and counted.

### Appropriate signal donators

- Screws of the brake disc
- Parts of the brake disc itself
- Additional mounted parts



### Technical specifications

#### Electrical characteristics

Supply voltage.....	12 V
Maximal switch frequency..... (with impulse ratio 50:50)	800 Hz
Switch indication.....	LED yellow
Measure distance:	
steel.....	maximum 2 mm
alloy.....	maximum 1 mm

#### Mechanical characteristics

Dimensions.....	ØM8 x 35 mm
Housing material.....	aluminium
Weight.....	5 g
Cable & Connector (options on customer request)	
type.....	PVC
wire cross-section.....	3 x 0,14 mm <sup>2</sup>
length.....	300 mm
connector (standard).....	Binder 719, 4PM
Speed extension (on request)	
type.....	PUR
wire cross-section.....	4 x AWG 24
length.....	1000 mm

#### Environmental data

Ambient operating range.....	-50 to +80 °C
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### Ordering information

Art.No.:..... SD-V01M8-000

## SD-V01M8-000

## Inductive speed sensor

### Sensor Setup

- > Same distance between all signal donators
- > Radius of the signal donators shouldn't be too big (→ pulses too short)
- > Use signal donators with sharp edges and a flat surface (no inbus or lensescrews)
- > They should consist of an appropriate material ( metal , you can test the material with the switch indicator (LED yellow) it should work when the signal donator has a maximum distance of 2mm to steel)
- > Optimum distance is 1 to 2mm
- > Using aluminium, magnesium, or titanium as signal donators reduces the distance to 1 mm

### Formulas

	SD-V01M8-000	Multiplicator	Offset
16 Bit A/D	Speed [km/h]	= 0.05 * Digits	+ 0

### Determination of the sensor impulses

- > Park your bike (vehicle) so that the rear wheel can rotate
- > Guarantee power supplying of the complete measurement system (usually = ignition on)
- > Place a mark on the tire or rim.
- > Turn the wheel for one complete rotation. The sensor will displayed the number of pulses (=yellow indication LED)
- > To ensure a good result, do several rotations and divide the number of counted pulses by the number of rotations.
- > Finally note the number of pulses for one complete rotation.
- > Note the circumference of your motorcycle wheels (rear and front are different !).
- > Start the program WinIt by pressing the button <Logger> or hit <F2>
- > Take a look for the speed channel (usually named as V\_Front or V\_Rear)
- > Select speed channel and enter tab <Parameter>

Parameter	
Circumference (mm)	<input type="text" value="2777"/>
Pulses	<input type="text" value="1"/>
Timeout (µsec)	<input type="text" value="0"/>
Digital threshold	<input type="text" value="0"/>

Enter both values: Circumference and Pulses

Confirm all changes with <Apply>

### Connector layout

Pin	Name	Description	Color
1	GND	Digital Ground	blue
2	n.c.	Not connected	-
3	Signal	Digital Signal	black
4	+12V	Power supply	brown

### Connector type

#### Connector at sensor



Binder 719, 4PM  
color blue

#### Mating plug



Binder 719, 4PF



Possible options concerning plug and cable on customer request !

#### Please note:

For the first order of special customer options please use the following order code: **SD-V01M8-000**  
 After the first order you will get from 2D a uniquely order code for your next orders.

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