

AccoSat 3.5 R1

Part No. 40.0060

MSO Meßtechnik und Ortung GmbH

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1 Intended use

The AccoSat 3.5 R1 can be used to measure the speed of vehicles over ground. The AccoSat is operated to a DC voltage of +8V to +28V. Please observe the connection instructions during installation.

The product must not be modified or converted. Any use other than that intended is not permitted! If the AccoSat is dirty (accumulation of dust, spray etc. on the sensor), it must be cleaned!

2 Description

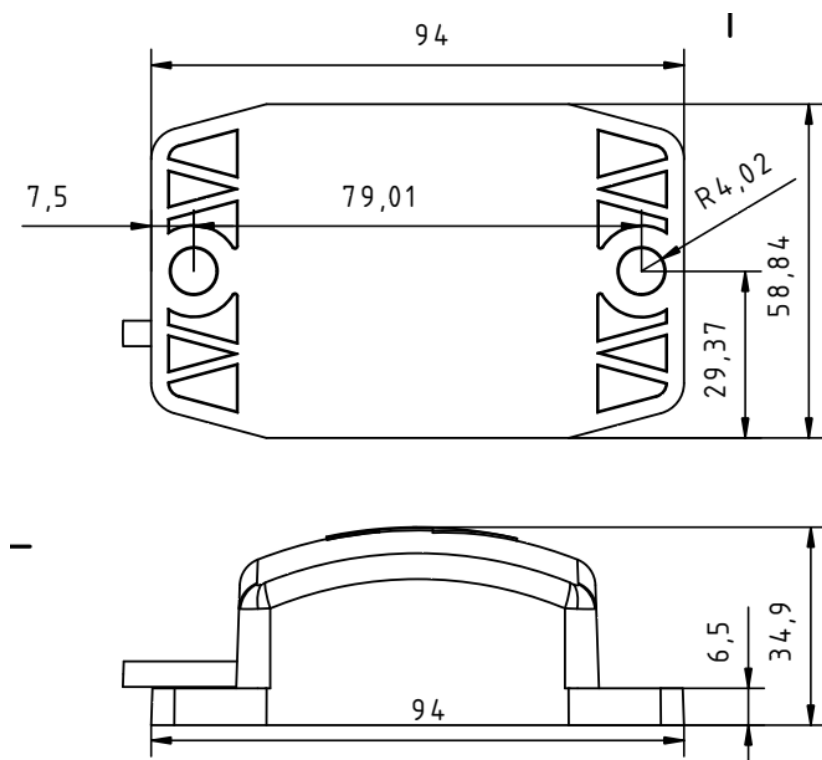
The AccoSat speed sensor provides the relative speed to the ground for use in monitoring, control, regulation and recording systems. The AccoSat measures speed using a sensor combination of a GNSS (GPS) receiver and an accelerometer. The sensor can be used for speed measurement on agricultural vehicles/offhighway vehicles. The sensor does not work with complete GPS shadowing, e.g. in a tunnel or building. The sensor is not suitable for special applications with constant low speeds below 3 km/h (e.g. planting machines, deep loosening etc.).

3 Assembly and commissioning

The sensor is mounted horizontally on the machine with a clear all-round view.

The black arrow on the top of the housing must point forwards in the direction of travel.

Secure the connection cable with cable ties. The housing has the following dimensions (all dimensions in mm):



4 Connection

Power supply: The AccoSat has a permanently connected cable with three wires. Connect the supply voltage (+8V to +28V) to U+(red) and Ground (0V) to GND (black) (pay attention to polarity)!

The AccoSat has the following pin assignments:

Designation	Function	Cable colour
GND	Ground (0V)	Black
U+	Supply voltage +8V - +28V ($< 100mA$)	Red
DATA	Pulse output signal (Push/Pull) 130 Pulse/m	Brown

Data output: The sensor outputs a speed-dependent square-wave pulse signal at the DATA connection. The sensor supplies 130 pulses/m ($36.1 \frac{Hz}{km/h}$) in accordance with DIN 9684 / ISO.

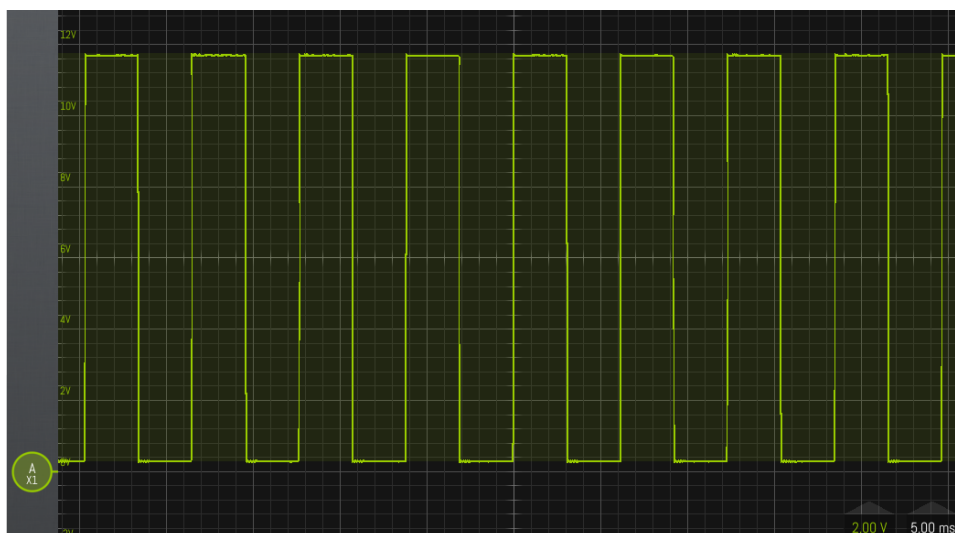


Figure 1: Pulse signal on oscilloscope (12V supply voltage)

5 Technical specifications

Power supply	+8 VDC to +28 VDC
Current consumption	typ. 20 mA @ 12V DC
Power consumption	< 0,5W
Pulse output signal	130 Pulse / m ($36,1 \frac{Hz}{km/h}$) acc. with DIN 9684 / ISO 11786
Pulse output signal, update rate	25 Hz
Measuring range	0,5 km/h to 200,0 km/h
Measuring range at constant travelling speed	from 3,0 km/h
Temperature range	Storage -40°C - 85°C Operation -40°C - 70°C
Environmental protection	IP6KX, IPX7, IPX9K corresponds ISO 20653
Connection	4m cable (3 x AWG20 UL LiYCY), open cable ends
Dimensions (without cable, with mounting brackets)	59 mm wide, 94 mm long, 35 mm high
	 

6 Contact

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7 Declaration of conformity

Manufacturer's name	MSO Meßtechnik und Ortung GmbH
Manufacturer's address	Hohweg 8-10, 53902 Bad Münstereifel, Germany
Product type	Speed sensor
Model	AccoSat Version 3.5
Product Status as of	1 Dezember 2025
TARIC Nummer / Commodity tariff	90292031
Country of origin	Germany

The Product is compliant with the following standards and/or other normative, essential requirements according to European Radio Equipment Directive 2014/53/EU

	applied specifications / standards
RoHS	Directive 2011/65/EU, EN 50581:2012 (EN IEC 63000:2018)
Environmental Protection	ISO 20653: IP6KX, IPX7, IPX9K

The EUT described above has been tested and found in compliance with the council Radio Equipment Directive 2014/53/EU (RED). It is possible to use CE marking to demonstrate the compliance with this Directive.