

Pioneering new technologies
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Sensor-Technik Wiedemann GmbH
Mobile Controllers and Measurement Technologies

Inclinometer and Gyroscope Sensor

3 axis Inclinometer and Gyroscope Sensor



- preliminary -

3 Axis Inclinometer and Gyroscope Sensor

Combined sensor for measurement of angular velocity and inclination in 3 axes. The acceleration in each axis is also available. The measured values are available on the CANbus or as discrete analog outputs, current or voltage.

Pin assignment	
Pin	Signal
1A	Ub (9-36 V)
1C	GND
3A	CAN high
4A	CAN low
7A	Analog 1
7B	Analog 2
7C	Analog 3
6A	Analog GND

Gyroscope Sensor

Bandwidth (-3 dB)	40 Hz
Measurement range	$\pm 50^\circ/\text{s}$
Effective resolution (limited by the noise of the gyroscope sensor)	0.6°/s

Inclinometer/Accelerometer

Bandwidth (-3 dB)	15 Hz
Measuring range	$\pm 90^\circ$ and $\pm 2\text{g}$ or $\pm 6\text{g}$
Effective resolution (limited by the noise of the accelerometer)	0.01° bzw. 0.2mg

Common Data

Output signal digital	CAN, Baud rate 50 to 1000 kBit/s
Output signal analog	4 - 20 mA or 0 - 10 V
CAN interface	CAN 2.0 B (11bit and 29bit Identifier)
Temperature range	-40 ... +85 °C
Voltage supply	9 ... 36 V
Current consumption	120 mA @ 12V (typ.)
Connector	24-pole automotive-capable connector with locking
Protection class	IP 67
EMV, mechanical and climatic requirements	According to automotive, agricultural and construction industry standards, CE-conformity
Chassis	Aluminium, approx. 78x78x34.4 mm, cast electronics
Weight	approx. 350g



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