Pioneering new technologies

Sensor-Technik Wiedemann GmbH
Mobile Controllers and Measurement Technologies

Technical data

Inclinometer and Gyroscope Sensor NGS2

www.sensor-technik.com

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 CAN bus and optionally on three analog outputs, current or voltage.

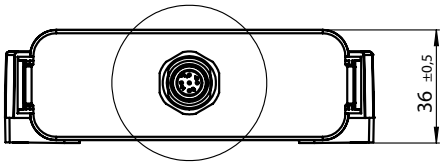
Technical data

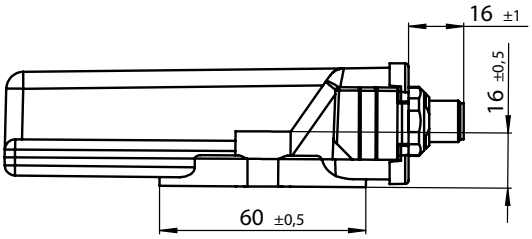
Gyroscope Sensor	
Measuring range	± 50 °/s
Band width (3 dB)	40 Hz
Resolution	0,25 °/s
Accuracy Offset (–40 °C...+85 °C)	± 0,5 °/s*
Accuracy Span (–40 °C...+85 °C)	± 0,5 % FS*
Non linearity	0,1 % FS
Influence acceleration	(0,1 °/s)/g

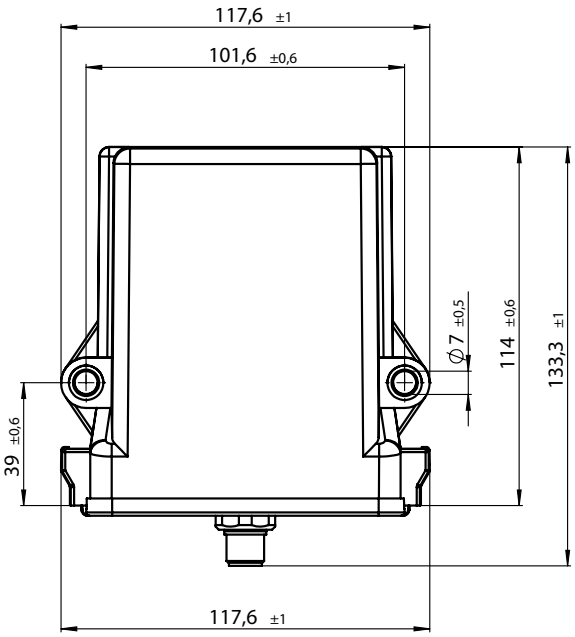
Inclinometer	
Measuring range	± 180 ° (analogue ± 90 °)
Band width (3dB)	15 Hz
Resolution	0,01 °
Accuracy (–40°C...+85°C)	± 1,5 ° (typ. ± 0,5 °)*

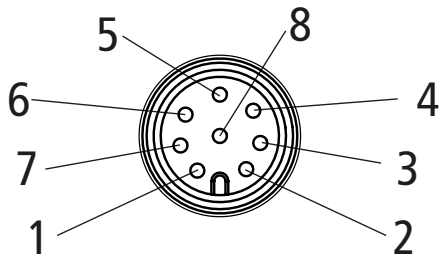
Collective data	
Output signal digital	CAN, baudrate 50 to 1000 kBit/s
Output signal analogue	0 ... 20 mA or 0 ... 10 V *refered to CANopen-Interface, analogue outputs can differ
CAN-Interface	CANopen
Temperature range	–40 °C ... +85 °C
Excitation voltage	9 … 36 VDC resp. 14 … 36 VDC (0 … 10 V voltage output)
Current consumption	120 mA @ 12 V / 60 mA @ 24 V
Connector	5-pole M12-plug (CANopen), 8-pole (CANopen and analogue output)
Protection class	IP67 / IP69k
EMV, mechanical and climatic requirements	According to automotive, agricultural and construction industry standards, CE-conformity
Chassis	PBT-GF30
Weight	approx. 250 g

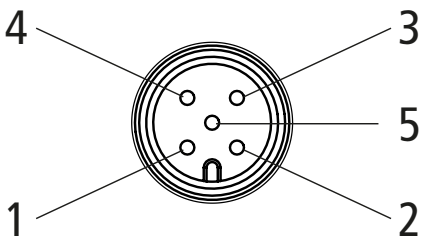
3-axis Inclinometer and Gyroscope Sensor











Pin assignment for 8-pole connector	
Pin	Signal
1	CAN_H, CAN+
2	V+, Supply
3	ANALOG_OUT1
4	ANALOG_OUT2
5	ANALOG_OUT3
6	ANALOG_GND
7	CAN_L, CAN-
8	GND, Ground

Pin assignment for 5-pole connector	
Pin	Signal
1	n.c.
2	CAN_V+, Supply
3	CAN_GND, Ground
4	CAN_H, CAN+
5	CAN_L, CAN-

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