

## 3D- Acceleration sensor BWG 100\_01

### Applications

- Measuring acceleration on moving objects in harsh environments
- Excavators, mining vehicles, skid-steers, mobile cranes
- Control- and monitoring units
- Factory automation

### Key specification

- High accuracy while moving
- High accuracy over wide temperature range
- Case aligned and orthogonalized (not applying for engineering sample)



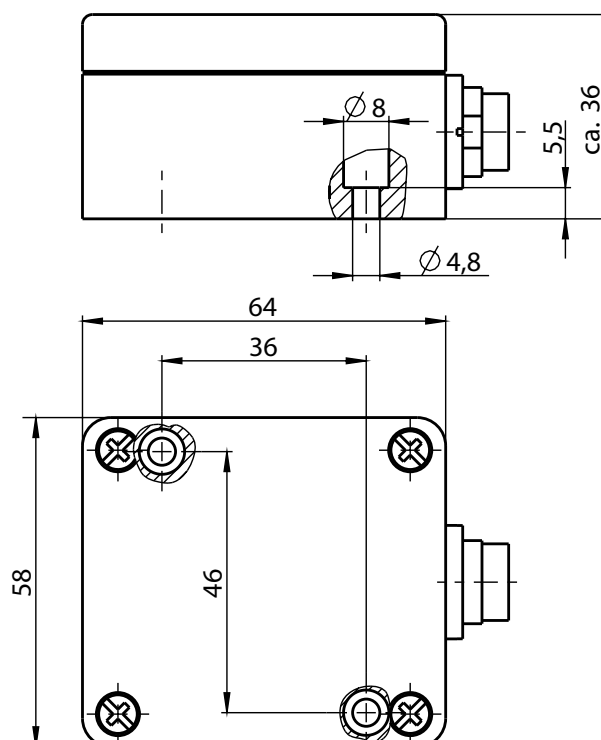
### Description

The 3D- Acceleration sensor is made for measurement in three axes simultaneously.

The sensor provides high stability with temperature compensated ceramic packaged MEMS (micro-electro-mechanical-system) accelerometers and gyroscopes to assure a long term performance and excellent reliability.

The complexity of multi-axis internal calibration and dynamic adaptive sensor fusion is handled by the sensor itself.

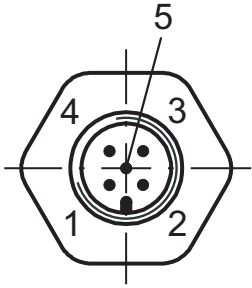
### Dimensions / Connections (mm)



## Connector CANopen

Male, 5-pin connector, M12

Pin description:



Pin	Signal	Description	Cable colour
1	-	Do not connect! (high damage risk)	brown
2	CAN V+	Supply Voltage	white
3	CAN GND	Ground (Power return)	blue
4	CAN H	CAN Bus High	black
5	CAN L	CAN Bus Low	grey

## Product specifications

Parameter	Unit	Specification
Axes		three (X, Y, Z)
Data range	g (gravity force)	2, 4, 8, 16 (user selectable)
Non-linearity	%	0.5
Temperature drift (-20°C to +85°C)	%/°C	±0.02
Shock resistance	g (gravity force)	100
Angle velocity range	°/sec	250, 500, 1000, 2000 (user selectable)
Output rate	Hz	approx. 120
Temperature range	°C	-40 to +80
Voltage range (DC)	V	+9 to +36
Power	W	max. 2
Environment protection		IP65 (EN 60529)

## ESD, Emissions and Immunity Ratings

- ICE 61000-4-2 level 4 compliant
- EN 61000-6-2, ESD
- EN 61000-4-4, FET
- EN 61000-4-5, Surge
- EN 61000-4-6, Conducted Immunity
- EN 61000-4-11, Voltage Dips and Interrupts

## Hardware options

- Sturdy case (IP65) as shown above
- Internal CANopen-Interface
- OEM (Case only)

## Output options

- CANopen (standard)
- USB, RS485, analogue 0-10V, 4-20mA on customer request

## Order Example

Type code	Description
BWG 100_01	3D- Acceleration sensor