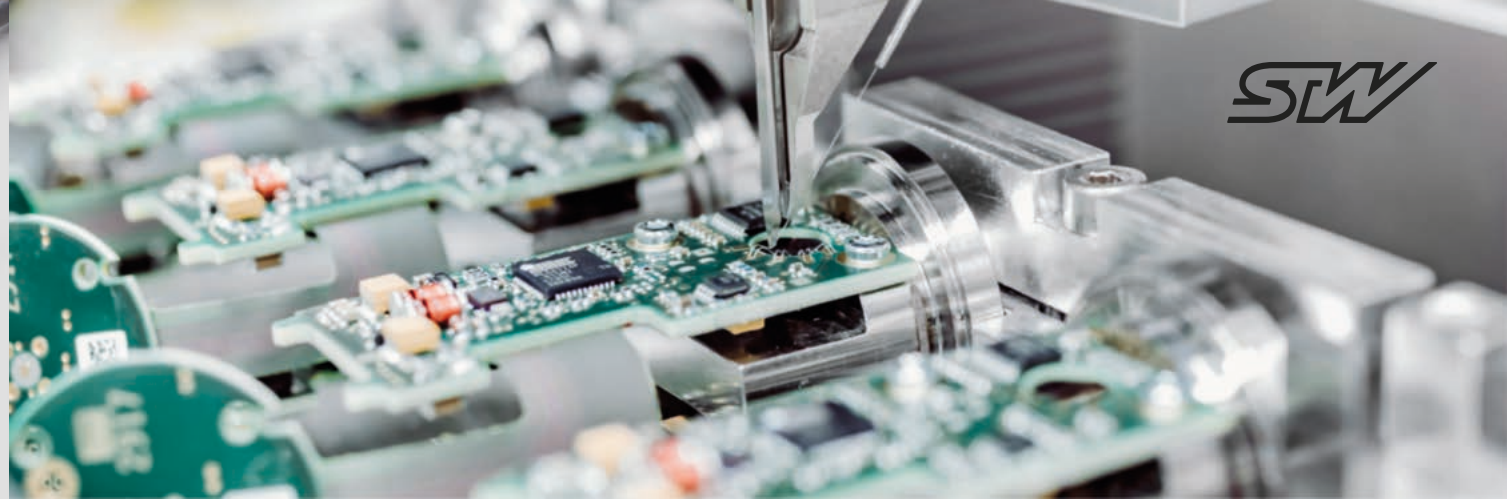


# **SMX.**igs-e

## Inclination and Gyro Sensors

## KEY FEATURES

- Sensors for measuring the inclination of one axis or two axes
- Compact and robust design for use in harsh environments
- Easy installation and commissioning
- Internal adjustable digital filter
- Integrated in STW software toolchain openSYDE
- With ECE type approval
- Optional gyro functionality*

## TECHNICAL DATA

- Inclination measurement range ± 90 ° or 360 °
- Temperature range -40 °C to +85 °C
- CAN interface
- Status LED
- Protection class IP65 / IP67

**Sensor-Technik Wiedemann GmbH**
Am Bärenwald 6
87600 Kaufbeuren
+49 8341 9505-0
info.stw@wiedemann-group.com
www.stw-mm.com

* Available by end of 2020

# TECHNICAL DATA

## Sensor

| Inclination Sensor Variants | ±90 ° Variant (two Axes) | 360 ° Variant (one Axis) |
|---|---|---|
| Measuring range inclination | ±90 ° | 360 ° |
| Resolution inclination | 0.01 ° | 0.01 ° |
| Accuracy inclination | ±0.3 ° | ±0.3 ° |
| Temperature range | -40 ... +85 °C (-40 ... 185 °F) | -40 ... +85 °C (-40 ... 185 °F) |
| Temperature coefficient (zero point) | typ. 0.01 °/K | typ. 0.01 °/K |

## CAN Interface

| Feature | Properties |
|---|---|
| Output signal | CAN, baudrate 100 to 1000 kBit/s |
| CAN Interface | CAN-STW-Standard |
| Digital filter | Adjustable filters |
| Status LED | Indication of different operating states |

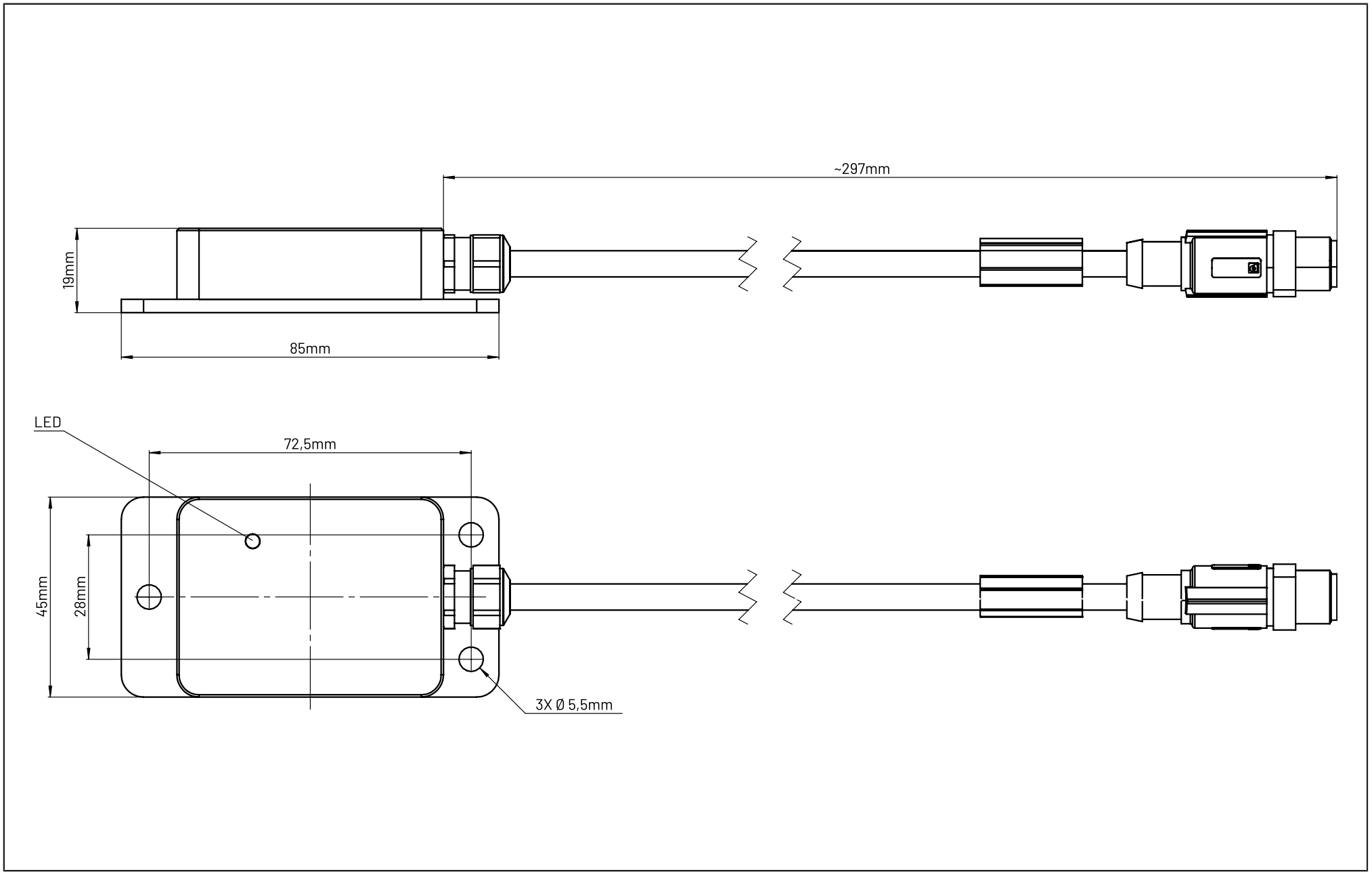
## Power Supply

| Feature | Properties |
|---|---|
| Power supply voltage | 8 to 36 V DC |
| Current consumption | 50 mA @12 V DC |

## Housing

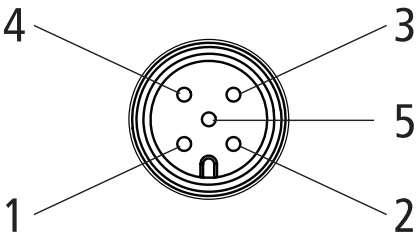
| Feature | Properties |
|---|---|
| Connector | 0.30 m cable with 5-pole M12-plug, A-coded |
| Protection class | IP65 / IP67 |
| Housing material | Anodized Aluminium |
| Housing dimensions (LxWxH) | 85 mm x 45 mm x 19 mm |
| Sensor weight | 130 g |

# TECHNICAL DRAWING



# PIN ASSIGNMENT

**Pin Assignment 5 Pin M12 Connector:**




| Pin | Name | Description |
|---|---|---|
| 1 | CAN_SHLD | PE, housing |
| 2 | VCC | Power supply |
| 3 | GND | Common ground |
| 4 | CAN_H | CAN bus (high) |
| 5 | CAN_L | CAN bus (low) |

# QUALIFICATION

**Compliance Information**

| Norm | Description |
|---|---|
| ISO/IEC 17050-1 | CE Conformity |
| E1 | ECE type approval |
| ISO 16750 | Road vehicles – Environmental conditions and testing for electrical and electronic equipment |
| EN 60068 | Environmental testing |