

## ORBIT G2© - Sensor Gateway

Item number: CMS02-SG

### Description

The basic ORBIT G2 sensor can be easily mounted on your application and measures environmental data such as temperature, humidity and noise level, as well as acceleration and angular velocity in 3 axes. In addition, the ORBIT G2 can be used to evaluate the data in a decentralised manner so that it is no longer necessary to transmit all the raw data collected. The connection to the network is made via Ethernet. Several ORBIT G2s can also be connected in series via the integrated switch. The 24V power supply ensures a stable connection without the need to change the battery. Digital trigger inputs allow measured values to be assigned to external events or measurements to be saved only for external events.



### Description of functions

#### IIoT-Cloud

Collect the results of your data evaluation automatically, e.g. in the SAP cloud.

#### Web-based configuration

Configuration via platform-independent web application and offline mass configuration.

#### Integrated Ethernet switch

Easily switch several sensors into series. No separate infrastructure necessary.

#### 3D angular velocity

Record the current angular velocity in three axes.

#### 3D acceleration measurement

Record the current acceleration in three axes.

#### Modern Internet protocols

Control / configuration of the system and transmission using state-of-the-art internet protocols (e.g. MQTT).

#### Extended storage capacity

Extensive data collection through increased storage capacity.

#### Decentral data evaluation

A local data evaluation can be programmed independently by the user, with „Python“.

#### Measurement of environment data

Determination of e.g. temperature, humidity and noise level.

## General data

Item number	CMS02-SG
Dimensions [mm]	80x55x25
Weight	62g
Body material	Plastic (Flame Retardant ABS POLYLAC® PA-765A)
Type of installation	Screw connection
Degree of protection	IP20
CE-labelling	Yes
Interfaces	Ethernet (IPv4/IPv6), 2 digital inputs, reset-button
Ethernet switch	2 ports
Characteristics	Static IP; DHCP; DNS; NTP
Data exchange	MQTT; FTP; REST

## Sensors

Noise level	Signal-to-noise ratio SNR: 65 dBA Sensitivity -26 dB FS $\pm 1$ dB
Temperature	Measuring range -40 to 125°C Accuracy $< \pm 1^\circ\text{C}$ (at operating point $\pm 0.2^\circ\text{C}$ )
Humidity	Accuracy $\pm 3\%$
3D-Acceleration	Range $\pm 4g$
3D-Gyroscope	Range $\pm 2000^\circ/\text{s}$

## Connections

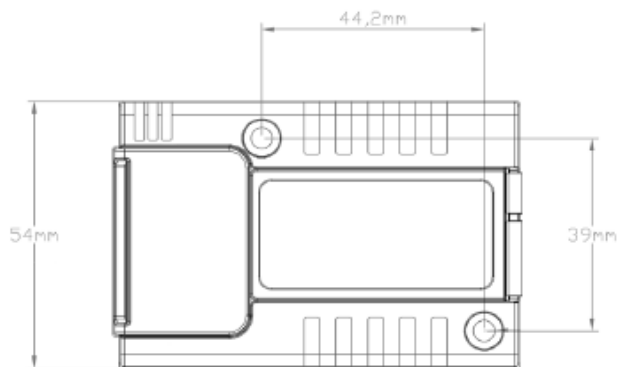
Ethernet switch	2x RJ45-Ports 10/100MBit
Digital trigger input	1x Würth WR-TBL 3221 4-pin
Power connection	1x Würth WR-TBL 3221 2-pin

## Power supply

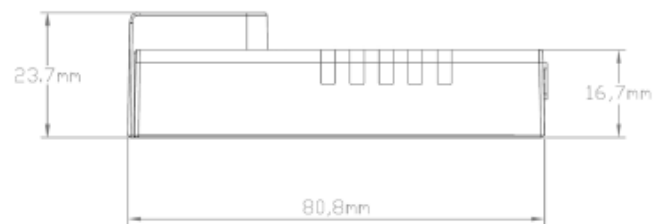
Voltage	24V DC
Power consumption	Max. 100mA

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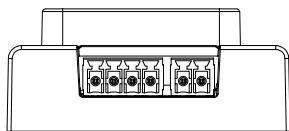
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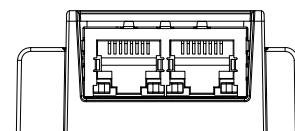
Plan view



Side view



Rear view



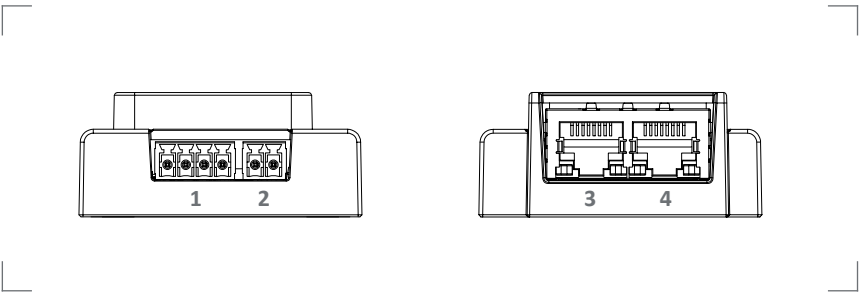
Front view

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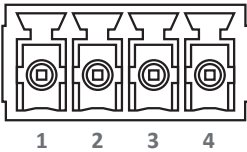
Wiring diagram

- 1. 4-pin socket
- 2. 24V supply voltage
- 3. RJ45 socket
- 4. RJ45 socket



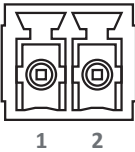
Pin assignment

4-pin socket



Pin	Signal
1	24V
2	Trigger input 1
3	Trigger input 2
4	GND

24V supply voltage



Pin	Signal
1	24V
2	GND