

Product sheet

GST – BiSensor CO2



Making buildings smart

Description

The BiSensor CO2 is a ceiling mount mains powered CO2, PIR slight motion and light sensor. Typical Mymesh applications for the BiSensor CO2 are indoor climate monitoring and light & climate control. Also Bluetooth beaconing for location-based services with the Mymesh Room Control app for Smartphone is supported.

The BiSensor CO2 supports:

- Measurement of CO2 level
- PIR Slight Motion Detection
- Measurement of ambient light level at the ceiling
- Bluetooth beaconing for location-based services

Installed at a typical ceiling height of 3 meter, the PIR slight motion sensor covers an area of approximately 20-30m².

Technical summary

Mymesh is a fully mesh wireless network protocol in which the applied Mymesh components communicate with each other and automatically organise themselves into a fully integrated wireless sensor- and control network, resulting in a robust and scalable smart control system that inherently is the foundation for a smart building network.

Easy installation

The BiSensor CO2 fits perfectly flush mount in a rectangular hole of 42mm x 82mm. The raised edge is 0.8mm to lock the BiSensor CO2 in the rectangular hole. A luminaire spring clip holds the BiSensor CO2 in place. The BiSensor CO2 is fully integrated in the luminaire without brackets.

For mounting the BiSensor CO2 outside the luminaire in a suspended ceiling or on a ceiling two types of brackets are available. Wieland GST pluggable electrical installation.

Network features

- Wireless, stand-alone network that is self-organizing and self-healing
- 2.4GHz communication for reliable data transfer
- Secure by design
- Ultra scalable to > 10,000 devices in one network
- Updates and new functionality can be installed with Over-The-Air updates.
- Cloud interface (API) available to connect with Building Automation Systems, dashboards, user apps and more.

Bluetooth Beaconing

The BiSensor CO2 functions as a beacon next to regular operations. Via an app, smartphones can pinpoint their precise 3D location in the building which can be used for indoor navigation.

Second beaconing is used for location based services for users. With a room control app, the end-user can change the available settings like room temperature and lighting making wall switches and panels redundant.

Both BiSensor CO2 and Room Control app are connected to the Building Automation System via the Mymesh REST API. The Building Automation System handles the actual room measurements versus the given setpoints via the app.

This product sheet is subject to change without notice.

Device Information

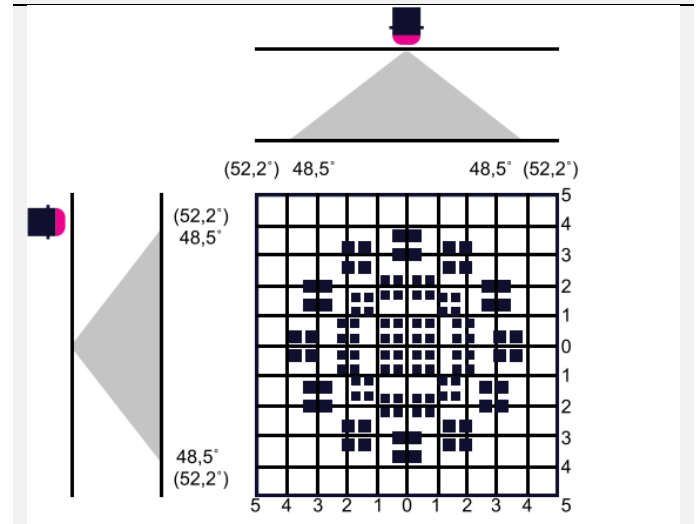
Connections		Environment	
Power Supply	Single phase 230VAC (+/- 10% 50Hz)	Operating Temp.	+5° to + 40°C (no frost, no condensation)
Wieland pluggable installation connector. Type GST1813K1-S 75H 05SW with 50cm cable. Free length excluding connector 36cm.		Relative Humidity	10% to 85%
Protection degree		Installation Height	Max. 2000m above sea level
GST - BiSensor CO2	IP20	Certification	
		ETSI EN 300 440	
		ETSI EN 300 328	
		ETSI EN 301 489-01/03/17	
		IEC EN 62368-1	
		RED / CE / UKCA	
Order information		Housing	
GST – BiSensor CO2 RAL7035 Light Grey	BLC.5406.001	LxWxH	86.3 x 46.5 x 52 mm
GST – BiSensor CO2 RAL9016 Traffic White	BLC.5416.001	Weight	101 gram
Ceiling Mount Attena Grey White RAL9002	BLC.5536.001	Material	ABS
Suspended Ceiling Mount Traffic White RAL9016	BLC.5532.001	Colour	Light Grey RAL7035
Energy Consumption		Radio	
BiSensor CO2	< 0.5 W	Band	2.4GHz ISM band

Sensor Information

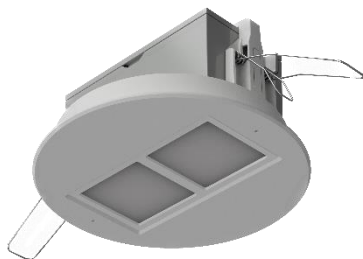
Light sensor	
Type	Independent ambient light sensor
Range	1 – 65,000 Lux
CO2 sensor	
Type	Non-dispersive infrared (NDIR)
Range	400–5,000ppm; extended range up to 10,000ppm
Accuracy	±30ppm ±3% of reading; extended range ±10% of reading



Slight motion PIR sensor	
Typical Installation height	3m
Maximum detection distance	4m
Field of view	104° x 104°
X-Y Cross section at 3m	

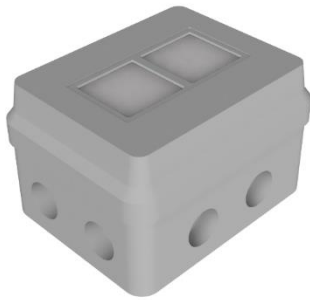


Accessories



Suspended Ceiling Mount Traffic White RAL9016.

Circular holder with spring clips to mount a BiSensor CO2 in a suspended ceiling.



Ceiling Mount Attema Grey White RAL9002.

Surface mount rectangular holder for BiSensor CO2.