DEUTA
Controls

2025

IoT products and solutions for Office Spaces and Smart Buildings

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Vibration and/or PIR based detection of occupied desks or rooms.

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High-precise measurement of CO level inside a room or an area.
Combined with a high power LED (see page 24)

...ise level of an area is ...esting for you as well ...n you try to optimize workspaces.

Counting people

Due to several reasons many companies have to implement measures to take care of the health of their employees. Especially in rooms and areas where people meet each other, the number of people should be limited to a certain amount.

As another result, companies have to use their office area as efficient as possible. So, the question are: Do we have enough meeting rooms? Do they have the right size / capacity? Or do only a few people regularly book rooms that are too large?

Several types of sensors can be used to count people in a room or an area.. The sensor principle depends on the environment and the use-case.

The most precise sensor to determine the number of people inside an area for sure would be a camera. Combined with an AI software, it would be easy to determine the number of people.
But normally it will not be allowed to use a camera based system for this task due to GDPR reasons.

Today, there are different technologies available:

- TOF - Time of flight
- PIR - Passive infrared
- Radar
- Light barrier

For this time, we tried to cover the following requirements:

- The device must not use an external power supply to reduce installation cost
- The device should use EnOcean wireless data transmission
- The device should be small enough to be placed easily to the ceiling by an adhesive tape above the door
- The lifetime of the batteries should be typ. >5 years

As a result, we developed the EnoSense People Counter. It is based on PIR technology and counts people passing by in both directions. It will immediately send an updated counter value when somebody is detected. Due to the optics and the filter algorithm, it is suitable for most use cases.

Please find the available options on the following pages.

EnoSense® People Counter

Do you need to know how many people are actually inside a room?
Would you like to check if your meeting rooms have the optimal size, or if you could divide the same area into more smaller rooms?
Or do you have to limit the maximum number of people in a room or area due to any limitation?

In this case, you can use the **EnoSense People Counter**. The device does not need any external connection, and can be easily mounted outside of a meeting room above the door.
It is supplied by two internal batteries (AA, 1.5 V, lifetime > 5 years) and does not need an external power supply. The People Counter is extremely small (36 x 37 x 80 mm), and will fit in nearly any situation.

Using a GDPR compliant technology (PIR = Passive Infra Red) instead of a camera, it will count people entering or leaving a meeting room. The counter value is transmitted via EnOcean technology.

Ordering information

Part number	Part name
12452	AL-436-00-868 EnOcean sensor "EnoSense People Counter" / black / CE
12465	AL-436-00-868 EnOcean sensor "EnoSense People Counter" / white / CE
12467	AL-436-00-902 EnOcean sensor "EnoSense People Counter" / black / FCC / ISED
12468	AL-436-00-902 EnOcean sensor "EnoSense People Counter" / white / FCC / ISED
12518	AL-436-00-921 EnOcean sensor "EnoSense People Counter" / white / NCC
12537	AL-436-00-921 EnOcean sensor "EnoSense People Counter" / white / KC / KOREA
12538	AL-436-00-868 EnOcean sensor "EnoSense People Counter" / white / CHINA
12539	AL-436-00-928 EnOcean sensor "EnoSense People Counter" / white / MIC
12540	AL-436-00-868 EnOcean sensor "EnoSense People Counter" / white / IDA
12600	AL-436-00-902 EnOcean sensor "EnoSense People Counter" / black / COLOMBIA
12604	AL-436-02-928 EnOcean sensor "EnoSense People Counter" / white / JAPAN
12755	AL-436-00-921 EnOcean sensor "EnoSense People Counter" / black / KC / KOREA
12759	AL-436-02-928 EnOcean sensor "EnoSense People Counter" / black / JAPAN
12763	AL-436-00-902 EnOcean sensor "EnoSense People Counter" / white / COLOMBIA
12770	AL-436-00-921 EnOcean sensor "EnoSense People Counter" / black / NCC / TAIWAN
12772	AL-436-00-921 EnOcean sensor "EnoSense People Counter" / white / NCC / TAIWAN
12791	AL-436-00-868 EnOcean sensor "EnoSense People Counter" / white / IMDA
12799	AL-436-00-868 EnOcean sensor "EnoSense People Counter" / black / IMDA

Interfaces	
Type	EnOcean
Number	1
Transmit / receive center frequency	see data sheet
Frequency range used	see data sheet
Maximum transmission power	see data sheet
Sensor: Motion detection	
Type	PIR (passive infrared)
Measuring range	0.5 m - 2.0 m to head or body
Typ. counting accuracy	95%
User interfaces	
Service button for teach in	Yes, in the front
Service LED	No
Acoustic feedback	No
Housing	
Colors	Black, White
Material	Plastic, PC
Power supply	
External	No
Internal	2x AA batteries, 1.5 V
Environmental conditions	
Operating temperature	+15° .. +40° C
Storage temperature	-20° .. +70° C
Rel. humidity	0 .. 99 %, non condensing
Protection class	IP20
Dimensions and Weight	
Weight	87 g
Dimensions	36 x 37 x 80 mm

System overview

Optimize your IoT infrastructure with our EnOcean MQTT gateway **VL-700 BASE**!

In a world where wireless networking and smart buildings are an increasingly part of everyday life, we are setting new standards in connectivity with our unique EnOcean IoT Gateway VL-700 BASE.
It seamlessly integrates up to **32 EnoDisc or HPE Aruba Networking access points** enabling you to create a comprehensive and effective IoT networking system.

Thanks to this advanced wireless technology, you can benefit from greater flexibility and scale in deploying solutions for smart homes and commercial applications.

Our gateway easily connects devices, sensor-based applications and automation systems, creating userfriendly and energyefficient environments.

Experience the ease of smart connectivity in buildings through our solution, which not only increases efficiency but also contributes to sustainable energy use. Connect your digital ecosystem and discover new opportunities for innovation and growth. With our EnOcean IoT Gateway, you are optimally equipped to meet the connectivity challenges of the future.

In the modern world of the IoT (Internet of Things), intelligent networking plays a crucial role. Imagine that data from up to 500 sensors can be seamlessly sent to your cloud, giving you unprecedented insight into your environment.
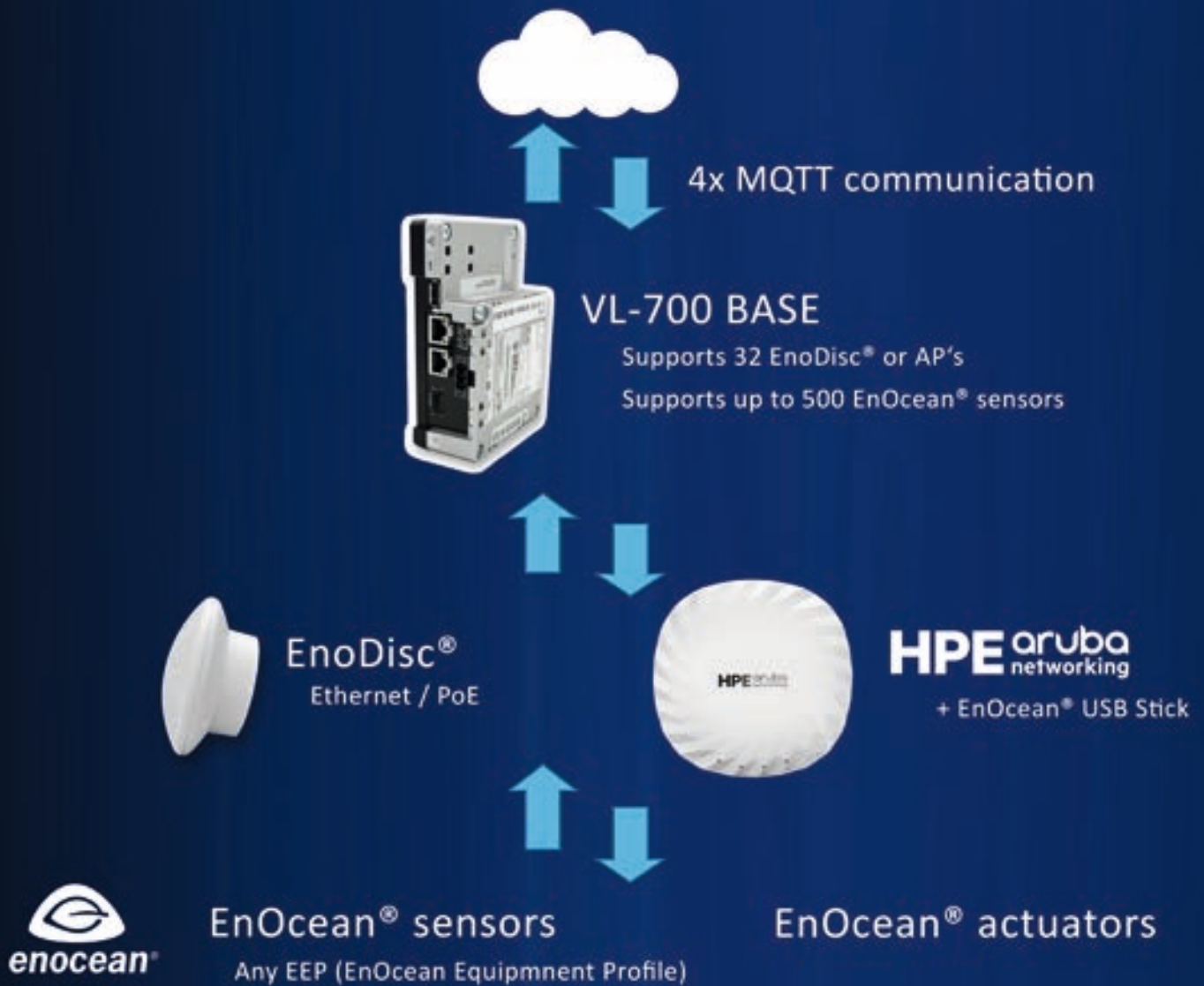This state-of-the-art system architecture enables you to capture precise information in real time, whether it's for monitoring environmental conditions, optimizing performance,or detecting problems early.

In addition two-way communication further enhances the efficiency and flexibility of our system. This feature not only allows you to receive data but also to actively control various actuators such as electronic radiator valves.
This makes it possible to efficiently regulate your heating and air-conditioning systems, save energy and significantly increase living comfort.

Thanks to these integrated solutions, controlling your smart home or industrial application is easier than ever. Optimize your processes with intelligently networked sensors and actuators – for a life in full harmony with modern technologies!

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EnOcean® to MQTT gateway solution

4x MQTT communication

VL-700 BASE
Supports 32 EnoDisc® or AP's
Supports up to 500 EnOcean® sensors

EnoDisc®
Ethernet / PoE

HPE aruba networking
+ EnOcean® USB Stick

enocean®

EnOcean® sensors
Any EEP (EnOcean Equipmnent Profile)

EnOcean® actuators

Detect occupancy

Do you need to know if a desk or a room is occupied or not?

As usual, there is more than one solution for this. In case of desk occupancy detection it mainly depends on the environment which sensor you should prefer:
EnoSense® Desk or **EnoSense® Wall & Desk**.

In case of a meeting room where you only would like to know that at least on person is inside, you should use the **EnoSense® PIR Ceiling**.

EnoSense® Desk

This new device will be mounted to the front edge of the table.
It uses a high sensitive under desk PIR sensor combined with a high sensitive vibration sensor, is powered only by a solar cell and does not need a battery.
In this way, you can cover situations where vibration of the desk is not a good indicator for presence detection.

EnoSense® PIR Ceiling

A sensor to detect people inside a room. To be mounted under the ceiling or on a wall.

In this way, you can check if there is at least one person in a room.

EnoSense® Wall & Desk

Besides temperature, brightness and humidity, this multi-sensor can detect vibration.

Mounted to a desk with an adhesive tape, this high sensitive device will detect the presence of somebody working at the desk with a good coverage.

EnoSense® Desk

If you would like to check if a working place is occupied or not, the EnoSense® Desk is a perfect solution.

It has an under desk passive infrared sensor (PIR), with a plastic that shields the area at the right side of the sensor from detection. It is simply mounted on the front edge of the table, on the right side of a desk.
In addition, it has a high sensitive vibration sensor inside, to support the detection of people while working on a PC.

It is powered by a standard coin cell CR2032 with a lifetime of at least 5 years.

You can select by pressing the service button how the sensor works:

Mode 1: Motion detection only by PIR sensor

Mode 2: Motion detection only by Vibration sensor

Mode 3 (default):

Combined detection, logical "OR" of Vibration and PIR sensor.

Ordering information

Part number	Part name
12588	AL-437-03-868 EnoSense Desk / white / CE (868.3 MHz)
12623	AL-437-03-902 EnoSense Desk / white / FCC (902 MHz)

Interfaces	
Type	EnOcean
Number	1
Transmit / receive center frequency	868.3 / 902.875 MHz

Sensors: Motion detection	
Type 1	PIR (passive infrared)
Measuring range	0.1 m - 2.0 m
Type 2	Vibration

User interfaces	
Service button for teach in	Yes, in the front
Service LED	Yes
Acoustic feedback	No

Housing	
Colors	White
Material	Plastic, PC

Power supply	
External	No
Internal	Battery CR2032 (included)

Environmental conditions	
Operating temperature	0 °C .. +60 °C
Storage temperature	-20 °C .. +70 °C
Rel. humidity	0 .. 99 %, non condensing
Protection class	IP20

Dimensions and Weight	
Weight	19 g
Dimensions	81 x 41 x 9 (26) mm

Available options	
CE / RED	Yes
FCC	Yes (15.231 / Part 15)

EnoSense® PIR Ceiling

If you would like to check if at least one person is inside a room or within an area, you should select the EnoSense PIR Ceiling.

It is an ceiling mounted passive infrared sensor (PIR) and has a detection radius of approx. 5 m when mounted at 2.5 m height.

It is mainly powered by a high-efficient solar cell and has a back-up battery inside to avoid a lack of energy for example in case of bad weather conditions outside that will lead to a decreased ambient light for a while.

To support the installation process, a so called walk test can be activated. In this case, an internal LED will light up and show that the sensor detected a movement and would send a message in this case.

Ordering information

Part number	Part name
12321	AL-432-00-868 EnoSense PIR Ceiling / white / CE
12394	AL-432-00-902 EnoSense PIR Ceiling / white / FCC
12517	AL-432-00-921 EnOcean motion sensor "EnoSense PIR Ceiling" / white / NCC / TAIWAN
12533	AL-432-00-921 EnOcean motion sensor "EnoSense PIR Ceiling" / white / KC
12534	AL-432-00-868 EnOcean motion sensor "EnoSense PIR Ceiling" / white / CHINA
12535	AL-432-00-928 EnOcean motion sensor "EnoSense PIR Ceiling" / white / MIC
12536	AL-432-00-868 EnOcean motion sensor "EnoSense PIR Ceiling" / white / IDA
12602	AL-432-02-902 EnOcean motion sensor "EnoSense PIR Ceiling" / white / COLOMBIA
12607	AL-432-02-928 EnOcean motion sensor "EnoSense PIR Ceiling" / white / JAPAN
12795	AL-432-00-868 EnOcean motion sensor "EnoSense PIR Ceiling" / white / IMDA

| Interfaces			Power supply		
	Type	EnOcean		External	No
	Number	1		Internal	Solar cell, backup battery (CR2032)
Sensors: Motion detection			**Environmental conditions**		
	Type 1	PIR (passive infrared)		Operating temperature	0° .. +30° C / 32° .. 85° F (indoor only)
	Mounting height (recommended)	2.5 - 3.0 m		Storage temperature	-20° .. +70° C / / 32° .. 185° F
User interfaces				Rel. humidity	20 .. 85 %, r.h., non condensing
	Service button for teach in	Yes, in the front		Protection class	IP20
	Service LED	Yes, behind the dome	**Dimensions and Weight**		
	Acoustic feedback	No		Weight	87 g
Housing				Dimensions	68 x 25 x 7 (25) mm
	Colors	White			
	Material	Plastic, PC			

EnoSense® Wall + Desk

If you would like to check if somebody is working on a desk, and you can rely on a vibration due to the desk constructio and the typical movements based on the job, you should select the **EnoSense® Wall + Desk.**

It is a desk occupancy sensor with a high sensitivity vibration and acceleration sensor. It is mounted with an adhesive tape (included) to the top surface of a desk. In contrast to the **EnoSense® Desk**, it has only a vibration sensor.

The integrated solar cell of the sensor is supported by an internal backup battery.
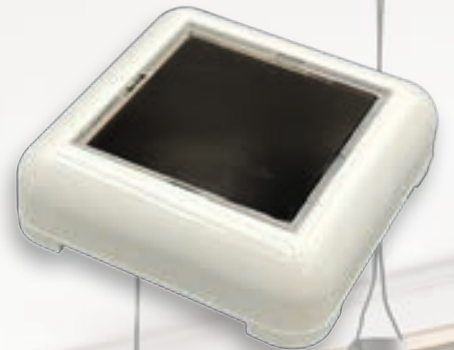
Ordering information

Part number	Part name
12286	AL-431-00-868 EnOcean Multisensor "EnoSense Wall & Desk" / white / CE
12471	AL-431-00-868 EnOcean Multisensor "EnoSense Wall & Desk" / black / CE
12472	AL-431-00-902 EnOcean Multisensor "EnoSense Wall & Desk" / white / FCC
12473	AL-431-00-902 EnOcean Multisensor "EnoSense Wall & Desk" / black / FCC
12515	AL-431-00-921 EnoSense Wall & Desk / NCC / TAIWAN white
12522	AL-431-00-928 EnOcean Multisensor "EnoSense Wall & Desk" / white / MIC
12523	AL-431-00-921 EnOcean Multisensor "EnoSense Wall & Desk" / white / KC
12524	AL-431-00-868 EnOcean Multisensor "EnoSense Wall & Desk" / white / CHINA
12525	AL-431-00-868 EnOcean Multisensor "EnoSense Wall & Desk" / white / IDA
12635	AL-431-02-928 EnOcean Multisensor "EnoSense Wall & Desk" / black / JAPAN
12636	AL-431-02-928 EnOcean Multisensor "EnoSense Wall & Desk" / white / JAPAN
12643	AL-431-01-902 EnOcean Multisensor "EnoSense Wall & Desk" / white / COLOMBIA
12762	AL-431-01-902 EnOcean Multisensor "EnoSense Wall & Desk" / black / COLOMBIA
12769	AL-431-00-921 black
12778	AL-431-00-921 EnOcean Multisensor "EnoSense Wall & Desk" / black / KC
12790	AL-431-00-868 EnOcean Multisensor "EnoSense Wall & Desk" / white / IMDA
12798	AL-431-00-868 EnOcean Multisensor "EnoSense Wall & Desk" / black / IMDA

Interfaces	
Type	EnOcean
Number	1
Transmit / receive center frequency	see data sheet

Sensors: Motion detection	
Type	Vibration / acceleration
Range / sensitivity	+/- 2 g / 0.003 g
Type	Temperature, humidity, ambient light, not activated by default

User interfaces	
Service button for teach in	Yes, at the side
Service LED	Yes, on top
Acoustic feedback	No

Housing	
Colors	Black, White, Beige
Material	Plastic, PC

Power supply	
External	No
Internal	Solar cell, backup battery (CR1632)

Environmental conditions	
Operating temperature	-5° .. +40° C / 23° .. 104° F
Storage temperature	-20° .. +70° C / -4° .. 158° F
Rel. humidity	0 .. 99 %, non condensing
Protection class	IP20

Dimensions and Weight	
Weight	29 g
Dimensions	50 x 50 x 17 mm

Check environment

Quite often our customers need to check the CO2 concentration in an office or in a meeting room to take care of the air quality.
In addition, for example in a classroom of a school, also a local LED should signal the CO2 concentration with different colors (green / yellow / orange / red).

We can provide you pure solar powered sensors for CO2 and NOISE measurement (**EnoSense CO2** and **EnoSense NOISE**).

In addition, we have the **EnoPuck®** series multi-sensor devices with high brightness RGB-LEDs inside (therefore an external power supply is needed).

Two devices with identical housing:

The **EnoSense® NOISE** measures the sound pressure level in dBSPL, and the **EnoSense® CO2** the CO2 concentration in ppm.

Both devices are powered by the full-size solar cell in the front. There are no batteries inside.

With the included mounting bracket or an adhesive tape it can be easily installed in any room to any wall.

EnoSense® NOISE

EnoSense® CO2

EnoPuck® CO2 / with RGB LED

You can simply put it on a desk and plug the external power supply into a power outlet. Done.

The EnoPuck® CO2 measures the CO2 concentration of the ambient air. If you do not change the configuration, the internal LED'S will light in green, yellow and red depending on the measured value.
In addition, it measures also temperature, rel. humidity and ambient light and transmits data via EnOcean Wireless interface.

EnoPuck® CO2 WALL

Has same features as the EnoPuck® CO2, but the EnoPuck CO2 WALL is prepared to be connected to an in-wall power supply (+12 V DC). Therefore, the power cable is on the backside of the device and no power connector is visible from the outside.

You should select this device if you do not like the external power supply and the power cord on the wall.

EnoPuck® CO2 + WALLKIT

Same features as the EnoPuck® CO2, but if you order the EnoPuck CO2 + WALLKIT, it is prepared to be mounted to a wall.
You should select this kit if you would like to combine the option of a wall mounted EnoPuck CO2 with an external power supply.

Well-being in the office

The success of a company depends on the health and well-being of its employees. When employees feel comfortable in their workplace, they are not only more productive but also more motivated. In addition, satisfied employees are less prone to stress and burnout.

With our new EnoSense® sensors in a very smart and small housing, you can now measure the most relevant parameters like temperature, rel. humidity and brightness.
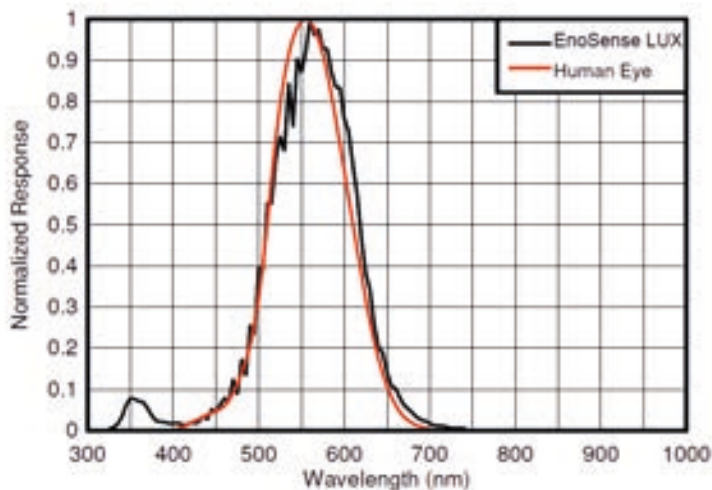
Adapted spectral sensitivity

The EnoSense® LUX measures the ambient light that illuminates the device. The sensor used measures the light with a spectral sensitivity that closely matches that of the human eye and has very good infrared suppression.

EnoSense® Lux

This new sensor works with an internal battery for use in any ambient light situation.

Every 15 minutes, or every minute if there is a change, EnoSense® Lux transmits its current measurement. In a stylish design, it fits unobtrusively on any wall, measuring just 81 x 41 x 9 mm.

EnoSense® Temp/RH

This small sensor measures temperature and rel. humidity.
It provides high accurate values (temp.: ± 0.3 °C, hum.: ± 3 %). The sensor in the stylish design housing can be easily mounted anywhere with the enclosed adhesive pad.

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EnoSense® CO2

If you would like to measure the CO2 concentration of the ambient air and you do not need a local visual feedback as you have in case of the **EnoPuck® CO2**, you should select the **EnoSense® CO2.**

It measures the CO2 concentration, temperature and rel. humidity and transmits these values together with the actual energy level via EnOcean telegrams.
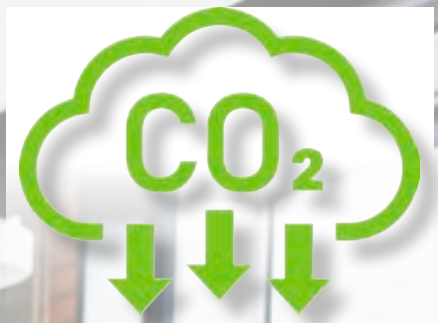At a typical ambient light level, it will send new values every 300 seconds.

The full-size solar cell provides all the energy to the EnoSense CO2 without the need of an internal battery.

Ordering information

Part number	Part name
12590	AL-439-00-868 EnoSense CO2 / white / CE
12619	AL-439-00-868 EnoSense CO2 / black / CE
12639	AL-439-00-902 EnoSense CO2 / white / FCC
12640	AL-439-00-902 EnoSense CO2 / black / FCC

Interfaces			Power supply		
Type	EnOcean		External	No	
Number	1		Internal	Solar cell, no batteries	

Sensors:			Environmental conditions		
Type	CO2		Operating temperature	0° .. +50° C / 32° .. 122° F (indoor only)	
Range	0 .. 5.000 ppm		Storage temperature	-15° .. +60° C / 5° .. 145° F	
Accuracy typ.@25° C	+/- (30 ppm +3 % rdg)		Rel. humidity	0 .. 99 %, r.h., non condensing	
Measurement & tx interval	300 s		Protection class	IP20	

User interfaces			Dimensions and Weight		
Service button for teach in	Yes, back side		Weight	120 g	
Service LED	Yes, inside		Dimensions	67 x 116 x 23 mm	
Acoustic feedback	No				

Housing			Available options		
Colors	White, Black		CE / RED	Yes	
Material	Plastic, PC		FCC	Yes (15.231 / Part 15)	

EnoSense® NOISE

If you would like to measure the noise level of the environment, you should select the **EnoSense® NOISE.**

It measures the noise level in dBSPL and transmits the value together with the actual energy level via EnOcean telegrams.

At a typical ambient light level, it will send new values every 240 seconds.

The full-size solar cell provides all the energy to the **EnoSense® NOISE**, without the need of an internal battery.

Ordering information

Part number	Part name
12620	AL-440-00-868 EnoSense NOISE / white / CE
12621	AL-440-00-868 EnoSense NOISE / black / CE
12637	AL-440-00-902 EnoSense NOISE / white / FCC
12638	AL-440-00-902 EnoSense NOISE / black / FCC

Interfaces	
Type	EnOcean
Number	1

Sensors:	
Type	Noise level sensor
Range	35.. 80 dBSPL
Tx interval	240 s

User interfaces	
Service button for teach in	Yes, back side
Service LED	Yes, inside
Acoustic feedback	No

Housing	
Colors	White, Black
Material	Plastic, PC

Power supply	
External	No
Internal	Solar cell, 2x AAA batteries

Environmental conditions	
Operating temperature	0° .. +50° C / 32° .. 122° F (indoor only)
Storage temperature	-15° .. +60° C / 5° .. 145° F
Rel. humidity	0 .. 99 %, r.h., non condensing
Protection class	IP20

Dimensions and Weight	
Weight	120 g
Dimensions	67 x 116 x 23 mm

| Available options	
CE / RED	Yes
FCC	Yes (15.231 / Part 15)

EnoPuck® CO2

If you would like to measure the CO2 concentration of the ambient air and you need a local visual feedback to tell people inside a room immediately that's time to open the window, then the **EnoPuck® CO2** is the right choice.

A state-of-the-art CO2 sensor (NDIR) measures the CO2 concentration of the air. With the standard configuration, the internal high-power RGB LED will change the color according to the measured level from green to yellow and red. Due to the fact that the LED can illuminate the EnoPuck CO2 the whole time, an external power supply (+12 V DC) is necessary (included).

At the same time, you can transmit the CO2 value and measured temperature, humidity and the ambient light level via EnOcean wireless interface. Also a PIR motion detector and a vibration sensor is integrated. This can be used locally to disable the LEDs, for example when nobody is present.

One main feature is also that you can configure the whole device, for example the threshold values, the transmit intervals and the LEDs colors and brightness via the free-of-charge software tool BL-PC-FLEX-2 and an EnOcean USB-Stick.
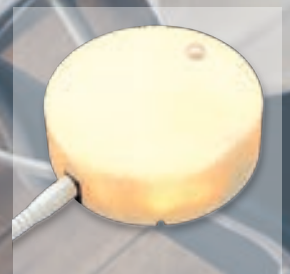
Ordering information

Part number	Part name
12301	AL-602-01-868 EnoPuck CO2 / CE
12562	AL-602-01-902 EnoPuck CO2 / FCC
12776	AL-602-01-921 EnoPuck CO2 / NCC / TAIWAN
12782	AL-602-01-921 EnoPuck CO2 / KC/ KOREA
12792	AL-602-01-868 EnoPuck CO2 / IMDA
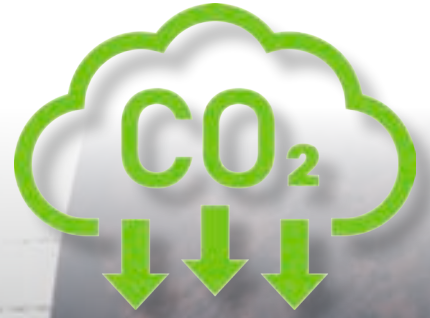
Interfaces	
Type	EnOcean
Number	1
Transmit / receive center frequency	see data sheet

Sensors:	
Type	CO2
Range	0 .. 2.550 ppm
Accuracy typ. @25° C	+/- (30 ppm +3 % rdg)
Type	rel. humidity
Accuracy	+/- 2 %
Type	Temperature
Accuracy	+/- 1° C
Type	Motion / PIR
Detection range	3 - 5 m

User interfaces	
Service button for teach in	Yes, at the side
Service LED	No
Acoustic feedback	Yes

Power supply	
External	Yes, +12 V DC power supply
Internal	No

Environmental conditions	
Operating temperature	0° .. +50° C / 32° .. 122° F (indoor only)
Storage temperature	-20° .. +70° C / / 32° .. 185° F
Rel. humidity	0 .. 99 %, r.h., non condensing
Protection class	IP20

Dimensions and Weight	
Weight	150 g
Dimensions	100 x 28 mm

Housing	
Colors	White, opaque
Material	Plastic, PC

EnoPuck® CO2 WALL

If you would like to measure the CO_2 concentration of the ambient air and you need a local visual feedback to tell people inside a room immediately that's time to open the window, the **EnoPuck® CO2 WALL** can be the right choice as well.

Compared with the EnoPuck CO2, the **EnoPuck® CO2 WALL** has exactly the same technical features. The only difference it that it is supplied by an in-wall mounted power supply (12 V DC), so the external power supply and also no power cord is visible on the wall.

This is quite useful if you do already have a power outlet available, or you simply do not like to have the power cord on the wall.
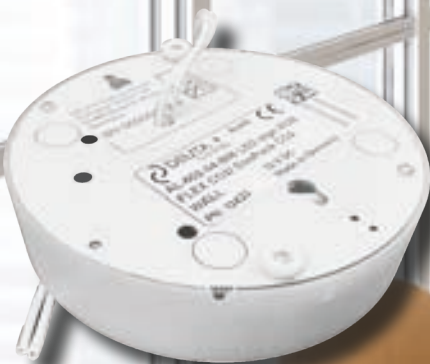
Ordering information	
Part number	Part name
12433	AL-602-04-868 EnoPuck CO2 WALL / CE
12564	AL-602-04-902 EnoPuck CO2 WALL / FCC
12670	AL-602-01-868 EnoPuck CO2 WALL / CHINA
12672	AL-602-04-921 EnoPuck CO2 WALL / NCC / TAIWAN
12676	AL-602-01-928 EnoPuck CO2 WALL / JAPAN
12783	AL-602-04-921 EnoPuck CO2 WALL / KC / KOREA

EnoPuck® CO2 + WALLKIT

If you do not want to use an in-wall power supply, you can use this option. The standard **EnoPuck CO2** comes along with a wall mount bracket, same as in case of the **EnoPuck CO2 WALL**. But at the same time it is supplied by the standard extern power supply of the EnoPuck CO2.

So this version is mainly used if you want to have the **EnoPuck CO2** mounted to a fixed position on the wall, but you do not want to spend effort to do some construction work.

Ordering information

Part number	Part name
12843	AL-602-01-868 EnoPuck CO2 WALL + WALLKIT / CE
12845	AL-602-01-902 EnoPuck CO2 WALL + WALLKIT / FCC

EnoSense® Lux

The **EnoSense® Lux** measures the illumination level in lux, and transmits the value wirelessly in accordance with the EnOcean radio standard.

It is powered by an internal CR2032 battery. The lifetime is at least 5 years until the battery has to be replaced.

It can be mounted either using the enclosed double-sided adhesive pad (recommended) or by screwing it to the wall.
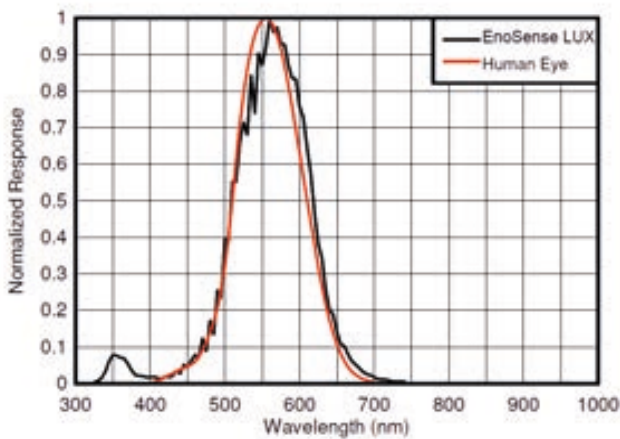
Adapted spectral sensitivity

The EnoSense® LUX measures the ambient light that illuminates the device. The sensor used measures the light with a spectral sensitivity that closely matches that of the human eye and has very good infrared suppression.

Interfaces

Type	EnOcean
Number	1

Sensors EnoSense® Lux

Type	Illumination
Range	0 .. 60.000 lux
Tx interval	60 s / 15 min

Sensors EnoSense® Temp/RH

Type	Temp., rel. humidity
Range	0 .. 60 °C / 0 .. 95 %
Tx interval	60 s / 15 min

User interfaces

Service button for teach in	Yes, back side
Service LED	Yes, inside

Housing

Colors	White, Black
Material	Plastic, PC

Ordering information

Part number	Part name
12836	AL-443-00-868 EnoSense Lux white / CE
12837	AL-443-00-902 EnoSense Lux white / FCC

EnoSense® Temp/RH

The **EnoSense® Temp/RH** offers a simple way of measuring temperature and relative humidity and transmitting the values wirelessly in accordance with the EnOcean radio standard.

It is powered by an internal CR2032 battery. The lifetime is at least 5 years until the battery has to be replaced.

It can be mounted either using the enclosed double-sided adhesive pad or by screwing it to the wall.

Power supply

External	No
Internal	CR2032

Environmental conditions

Operating temperature	0° .. + 60° C / 32° .. 140° F (indoor only)
Storage temperature	-15° .. +70° C / 5° .. 158° F
Rel. humidity	0 .. 99 %, r.h., non condensing
Protection class	IP20

Dimensions and Weight

Weight	15 g
Dimensions	81 x 41 x 9 mm

Available options

CE / RED	Yes
FCC	Yes (15.231 / Part 15)

Ordering information

Part number	Part name
12391	AL-435-00-868 EnoSense Temp/RH white / CE
12829	AL-435-00-902 EnoSense Temp/RH white / FCC

Ordering information

Part number	Part name
12841	AL-444-00-868 EnoSense Window white / CE
12842	AL-444-00-902 EnoSense Window white / FCC

EnoSense® Window

NEW

The **EnoSense® Window** has two integrated magnetic field sensors and transmits a detected magnet in a standardized message format in accordance with the EnOcean radio standard.

It is powered by an internal CR2032 battery. The lifetime is at least 5 years until the battery has to be replaced.

It can be mounted by using the enclosed double-sided adhesive pad.

Interfaces	
Type	EnOcean
Number	1

Sensors EnoSense® Window	
Type	2x magentic field sensor 1x front + 1x side
Range	typ. 15 mm front typ. 7 mm side with the magnet included
Tx interval	immediately / 15 min

User interfaces	
Service button for teach in	Yes, back side
Service LED	Yes, inside

Housing	
Colors	White, Black
Material	Plastic, PC

Power supply	
External	No
Internal	CR2032

Environmental conditions	
Operating temperature	0° .. + 60° C / 32° .. 140° F (indoor only)
Storage temperature	-15° .. +70° C / 5° .. 158° F
Rel. humidity	0 .. 99 %, r.h., non condensing
Protection class	IP20

Dimensions and Weight	
Weight	15 g
Dimensions	81 x 41 x 9 mm

Available options	
CE / RED	Yes
FCC	Yes (15.231 / Part 15)

EnoDisc®- Ethernet based EnOcean Transceive

The actually smartest available interface between a PLC with Ethernet inter-
face and maybe several hundreds of EnOcean wireless sensors and actuators is
the new and innovative EnoDisc. To provide the easiest way of installation, the
EnoDisc communicates via Ethernet and is powered by Power over Ethernet
PoE / 48 V DC, using the same Ethernet cable.

The EnoDisc uses the EnOcean Serial Protocol 3 (ESP3) to receive and trans-
mit data from/to the Ethernet.

The EnoDisc comes in an on-wall housing with a modern design and can be
easily mounted to the ceiling. The electrical connection is done using a stan-
dard LSA tool for Ethernet cables.

An integrated web server allows to track EnOcean
communication in real time.

Power
Over
Ethernet

Ordering information

Part number	Part name
12320	AL-512-01-868 IP-ENOCEAN-BRIDGE POE / RJ45 / EnoDisc / white / CE
12435	AL-512-01-868 IP-ENOCEAN-BRIDGE POE / RJ45 / EnoDisc / black / CE
12404	AL-512-01-902 IP-ENOCEAN-BRIDGE POE / RJ45 / EnoDisc / white / FCC
12561	AL-512-00-902 IP-ENOCEAN-BRIDGE POE / RJ45 / EnoDisc / black / FCC
12516	AL-512-01-921 IP-ENOCEAN-BRIDGE POE / RJ45 / EnoDisc / white / NCC / TAIWAN
12773	AL-512-01-921 IP-ENOCEAN-BRIDGE POE / RJ45 / EnoDisc / black / NCC / TAIWAN
12526	AL-512-00-921 EnoDisc KOREA
12541	AL-512-01-868 IP-ENOCEAN-BRIDGE POE / RJ45 / EnoDisc / white / CHINA
12543	AL-512-01-868 IP-ENOCEAN-BRIDGE POE / RJ45 / EnoDisc / white / IDA
12767	AL-512-02-928 IP-ENOCEAN-BRIDGE POE / RJ45 / EnoDisc / white / JAPAN
12605	AL-512-02-928 IP-ENOCEAN-BRIDGE POE / RJ45 / EnoDisc /black/ JAPAN
12765	AL-512-00-902 IP-ENOCEAN-BRIDGE POE / RJ45 / EnoDisc / white / COLOMBIA
12766	AL-512-00-902 IP-ENOCEAN-BRIDGE POE / RJ45 / EnoDisc / black / COLOMBIA

enocean®

Interfaces

Type 1	EnOcean, bi-directional
Type 2	Ethernet (PoE)

User interfaces

Service button	No
Service LED	Yes, inside
Acoustic feedback	No

Housing

Colors	White, Black
Material	Plastic, PC

Connectors

Ethernet	RJ45

Power supply

External	Power over Ethernet (PoE)

Environmental conditions

Operating temperature	0° .. +45° C / 32° .. 113° F (indoor only)
Storage temperature	-20° .. +70° C / -4° .. 158° F
Rel. humidity	0 .. 99 %, r.h., non condensing
Protection class	IP20

Dimensions and Weight

Weight	95 g
Dimensions	110 x 38 mm

Connector: RJ45
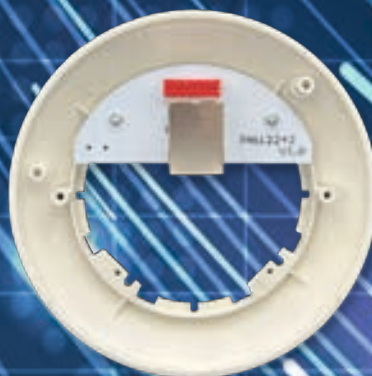
Transceiver + electronics

VL-700 BASE - EnOcean MQTT Gateway

The VL-700 BASE is a LINUX based edge controller. With the pre-installed driver software DBA (DEUTA Building Automation) and our ECS application (EnoDisc Controls System) it supports directly up to **32 EnoDisc's** and **up to 500 EnOcean sensors**.

With the 2 Ethernet ports you can connect the VL-700 BASE to the local intranet and the cloud with all state-of-the-art security standards you need in between.

In addition, you can use the combined RS232/RS422/RS485 serial interface port to connect for example a wired sensor via Modbus/RTU.

In the standard configuration, the ECS can be easily set up using an easy to use user interface. After a few steps, you can directly access all sensor data via your cloud solution.

If you need more features in your project, we can adapt the application and add for example interfaces like KNX-TP, BACnet, Modbus/TCP, Modbus/RTU or SIEMENS S7.

The VL-700 BASE supports now **4 MQTT Broker connections** at the same time!

NEW

- Embedded Yocto Linux System
- Two physically separate Ethernet interfaces
- Integrated firewall
- TLS 1.3
- Access to GUI via HTTPS and VNC
- User Management
- Password protection at system level
- 24/7 industrial controller with international approvals
- Extended temperature range -20 °C to +60 °C
- Supply voltage Industry standard + 24 V DC (10 .. 32 V DC)
- Aluminum die-cast housing for top-hat rail mounting

Ordering information

Part number	Part name
11895	VL-700 BASE
12839	VL-700 BASE ETH / TAIWAN
12757	VL-700 BASE ETH / KOREA

System resources	
CPU	EnOcean
Operating system	Linux RT
RAM	512 MB
FLASH	4 GB
Real clock	Yes
Backup battery	Yes
Buzzer	Yes

Interfaces	
Ethernet	2x 10/100 MBit (ETH0 / ETH1)
USB	1x Host 2.0 (max. 500 mA)
Serial	Combined RS-323/RS-422/RS-485
SD card	Yes
Others	Via extension port, i.e. KNX-TP

Power supply	
Supply voltage	24 V DC (10 - 32 V DC)
Supply current	0.6 A @ 24 V DC

Environmental conditions	
Operating temperature	-20° .. +60° C / -4° .. 140° F
Storage temperature	-20° .. +70° C / -4° .. 158° F
Rel. humidity	5 .. 85 %, non condensing
Protection class	IP20v

Dimensions and weight	
Weight	1.0 kg
Dimensions	134 x 102 x 45 mm

Approvals / standards	
CE	Yes
UL	ULus: UL61010-1 / UL61010-2-201 cULus: Class 1 Div 2
ATEX	Zone 2: II 3 G Ex nA IIC T5 Gc
DNV-GL	Yes

EnOcean Control System

The ECS is a pre-installed application running on the VL-700 BASE (or any other control panel or egde controller from DEUTA Controls).

It is easy to use and it provides a simple but powerful user interface to set up and maintain your project.

To add a sensor to the system, you only have to edit a friendly name, enter the EURID (unique EnOcean ID), and enter the EEP (EnOcean Equipment Profile = which kind of sensor you want to add).

When you already have added at least one EnoDisc in the system by simply entering IP and friendly name, the system is basically ready to transmit EnOcean sensor data towards your cloud.

To edit the clouds interface configuration, there are similar simple dialogs where you can set up the correct values and parameters.

Desk-sharing and Smart Office solutions with EnOcean® technology

DEUTA Controls has a turn-key solution with worldwide certifications ready for your desk sharing or Smart Office project.

This system is already installed in more than **18 countries** in the world.

The system is based on the following functionality and products:

- Desk occupancy
- Room occupancy
- People counting
- Air quality (CO2 / Temperature / Humidity)
- Local signalling of CO2 level (RGB LED)
- Ethernet-based EnOcean transceiver
- EnOcean Gateway
- MQTT / JSON data interface

Worldwide delivery and customs experience

We have years of experience exporting our electronic devices, which have proven themselves in international markets. Our dedicated team adapts to the ever-changing requirements and conditions, ensuring that our products meet global standards. With a clear focus on quality and innovation, we not only design products that meet the highest technological standards but also solutions that help our customers achieve their goals.

Every device we export is handled with the utmost care, with all logistical processes running smoothly. This way, we guarantee that our devices are not only functional but also reliable, no matter where they are used.

Our expertise in export is not limited to shipping but also includes comprehensive services from product advice to technical support on site. This enables us to maintain seamless quality control and offer our customers first-class support. Trust in our experience and let us conquer new markets together.

And finally:
Full service on demand. All you need from

We offer you comprehensive support in all areas, tailored to your wishes and requirements, to ensure that your project runs successfully and efficiently.

Our service begins in the planning phase: we provide you with expert support when it comes to radio coverage, careful product selection and precise determination of requirements.

Our expertise guarantees that all technical requirements are precisely recorded and that your vision can be turned into reality. In addition, we take care of the entire device configuration.

From the necessary labeling to the appropriate housing equipment to the careful preparation of the mounting: every detail is handled with the outmost care.

We parameterize the device function so that it is optimally adapted to your individual needs and guarantee a quick and uncomplicated commissioning if we are to carry this out on site.

production to system bring-up services.

Finally, we ensure that all devices are packed in sensible units and shipped to the construction site on time. This way, you can be sure that everything you need will arrive on time and be ready for use.

Put your trust in our comprehensive services to lay the foundation for the success of your project. We will support you every step of the way and ensure that your project is realized exactly according to your ideas.

Every device we export is handled with the utmost care, with all logistical processes running smoothly. This way, we guarantee that our devices are not only functional but also reliable, no matter where they are used.