cns-enocean™
wireless | energy harvesting

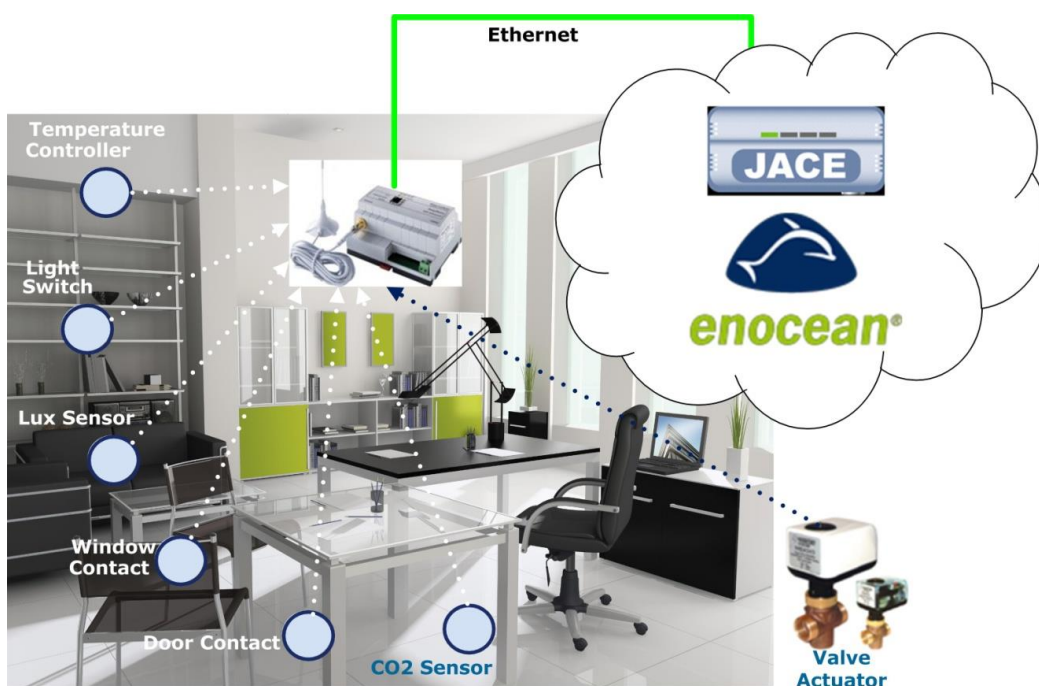## cns-enocean Batteryless CO2 Sensor Datasheet

Control Network Solutions, (CNS) creates market disruptive SMART web based solutions for building and lighting controls.

"Energy harvesting wireless solutions based upon open interoperable device international standards properly applied to smart building controls, offer highly energy efficient, low operating cost and sustainable solutions"

Introduction

cns-enocean™ for Niagara, is a web based solution, globally available today, that enables the simple commissioning and operation of networks of EnOcean® wireless energy harvesting devices through Ethernet connected wireless interfaces, via any suitable Niagara or Web Supervisor™ platform.

This enables Niagara Community and System Integrator Partners to leverage their existing Niagara tools, skills and knowledge to offer advanced wireless energy harvesting switching and sensing solutions to their customers: For further information visit **www.cns-enocean.com.**

EnOcean Batteryless CO2 Sensor

This world first CO2 sensor is the totally maintenance free, requires no batteries and is powered by harvesting energy from ambient indoor light making it straightforward and low cost to install. The sensor supports the open EnOcean standard (ISO/IEC 14543-3-10) facilitating seamless connection with Niagara building management systems using the Niagara Enocean Ethernet driver from CNS, click here for details.

EnOcean Batteryless CO2 Sensor Features

- ◆ Low cost, totally wire free installation, energy harvesting solar powered
- ◆ Can operate for up to 14 hours in total darkness
- ◆ Learn button for integration with EnOcean networks
- ◆ Fully EnOcean compliant, (EnOcean® Equipment Profiles): A5-09-04
- ◆ Uses proven CO2 sensing technology
- ◆ Peel and stick sensor deployment
- ◆ Temperature Range option from 0^0C to 40^0C
- ◆ Maintenance free operation for up to 10 years

This CO2 sensor is totally wire free and operates in total darkness for up to 14 hours.
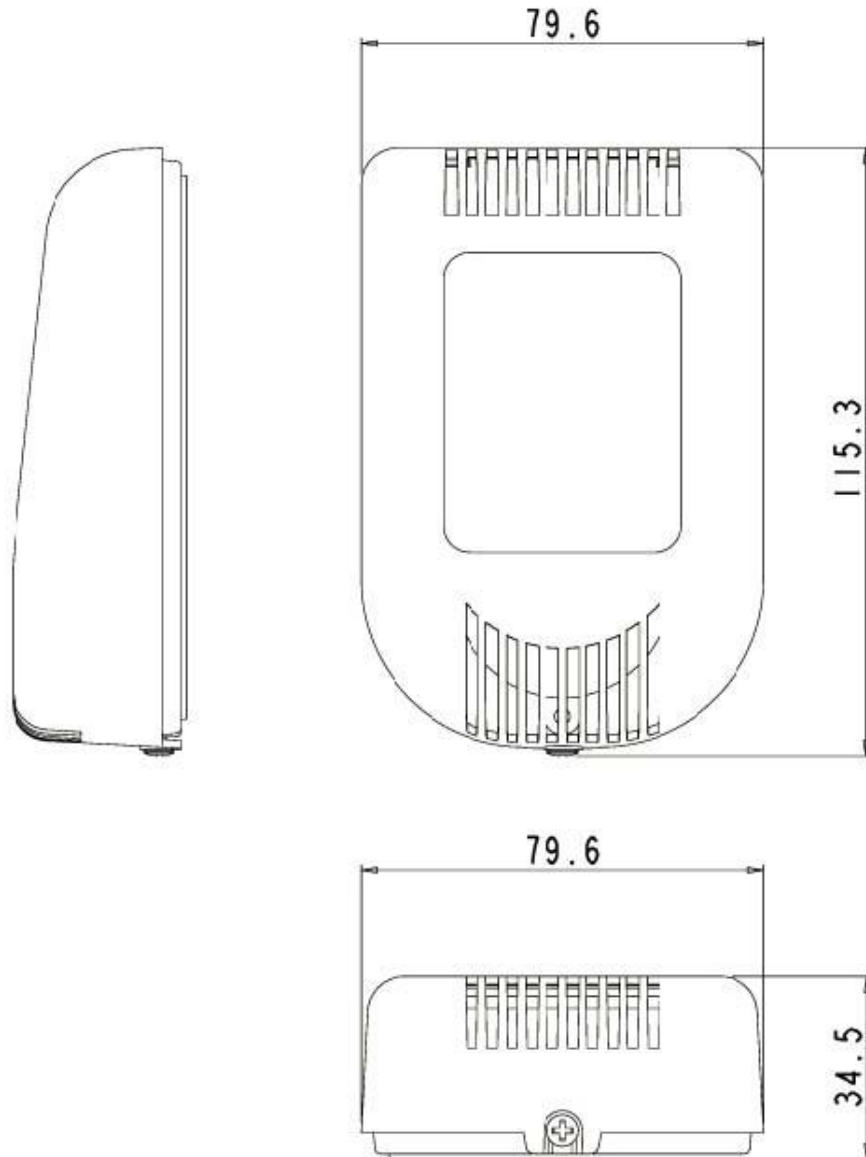
The CO2 sensor sample rate is automatically varied between 9 and 2 sample per hour) according to the available light level or fixed at 6, 4 or 2 times per hour.

It automatically self-calibrates and requires no maintenance.

EnOcean Batteryless CO2 Sensor Specifications

Dimensions, mm

Website: www.control-network-solutions.co.uk

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Mechanical

Range Temp CO2 Humidity	 0 – 40C 0-2500 PPM 0 -100% RH
Accuracy	+/- 30 PPM CO2, +/- 0.5^{0}C Temp, +/- 5% Humidity
Sampling Rate	Preset to 3 Mins or dynamically adjusted between 3 Mins and 10 Mins dependent on ambient light.
Repeater	No
Telegram	4BS
Environment	Indoor
Enclosure	ABS
Solar	Amorphous Silicon Solar Cells
Sensor Response time	Telegram transmission within 2 sec of measurement
Calibration	ABC Logic, auto recalibrate every 8 days
Operating Temperature Range	-5^{0}C to +40^{0}C
Storage Temperature Range	-12^{0}C to +55^{0}C
EnOcean® Equipment Profile, EEP	A5-09-04

Website: www.control-network-solutions.co.uk

Electrical

Battery Back Up	A size 3.6V Non rechargeable Lithium cell
Solar	Amorphous Silicon Solar Cells

EnOcean Wireless Information

EnOcean Wireless Systems Range Planning application note, click here.

Order Details

Part No: CNSWCO2-CO2-[a]-[b]

Description:

[a]   T = Temperature Sensor 0 – 40C
N = No Temperature Sensor

[b]   868 = Frequency 868 MHZ,
315 = Frequency 315MHZ, special order only
902 = Frequency 902 MHz
921 = Frequency 921 MHz, special order only

CNS can also supply additional **cns-**enocean compatible EnOcean wireless energy harvesting products click here for more details.

Website: www.control-network-solutions.co.uk

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