Klimaatsensor

Specificaties

Componenten:

- Relatieve luchtvochtigheid
- Temperatuur
- CO2
- Vluchtige organische stoffen (TVOC)
- Fijnstof (PM 1, 2.5 en 10)

Binnenklimaat inzichtelijk via onze app

Data as a Service, daardoor:

- Lage aanloopkosten
- Continue updates
- Voorspelling van onderhoud
- Gegarandeerd een perfecte datastroom

Optimale prestaties binnen uw gebouw!

Monitoren binnenklimaat belangrijk

Bent u ook bezig met de energieprestatie in uw gebouw? Cloud Garden helpt u speuren naar de mazen in uw gebouw.

Veel gebouwen kunnen door dynamisch afgesteld te worden wel 10-30% efficiënter presteren. Hiervoor is goede data een hele belangrijke factor. Zowel in BREEAM als in de WELL Building Standard wordt het belang van (de monitoring van) het binnenklimaat onderstreept.

Neem voor meer informatie contact met ons op: +31 (0)38 – 7730 075 of info@cloudgarden.nl

Kijk op www.cloudgarden.nl voor meer ideeën, producten en inspiratie

Cloud Garden
smart climate solutions

CG.TRHCV.D

Climate- and Particulate Matter sensor

Cloud Garden
smart climate solutions

This document describes the detailed measuring specifications of the Cloud Garden climate sensor CG.TRHCV.D

Relative humidity (%RH)

Parameter	Condition	Min	Typ	Max	Units
Accuracy tolerance	typ		±2.0		%RH
	max		See Figure 1		%RH
Repeatability			±0.1		%RH
Hysteresis			±1		%RH
Nonlinearity			<0.1		
Response time	τ 63%		8		s
Operating Range	Extended	0		100	%RH
Long Term Drift[5]	normal		<0.5		%RH/yr

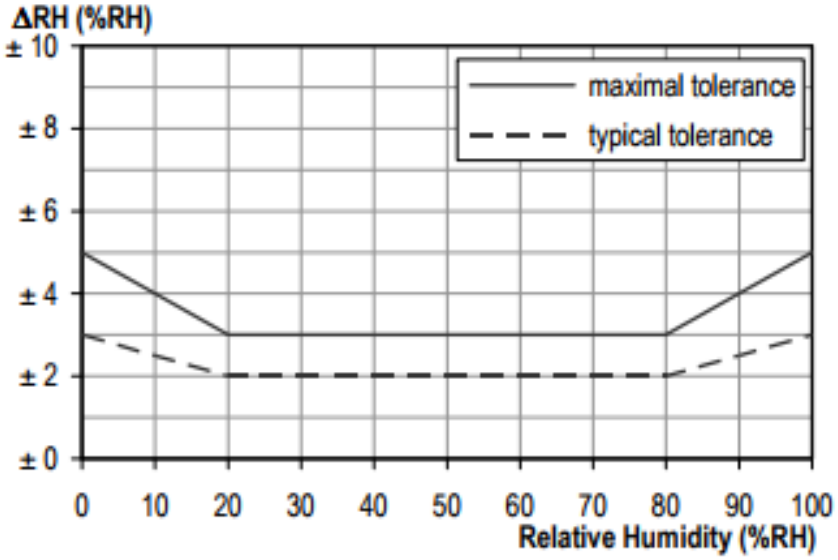

Figure 1 Typical and maximal tolerance at 25°C for relative humidity

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Temperature (°C)

Parameter	Condition	Min	Typ	Max	Units
Accuracy tolerance	typ		±0.3		°C
	max	See Figure 2			°C
Repeatability			±0.1		°C
Operating Range	Extended	-40		125	%RH
Response time	τ 63%	5		30	s
Long Term Drift			<0.04		°C /yr

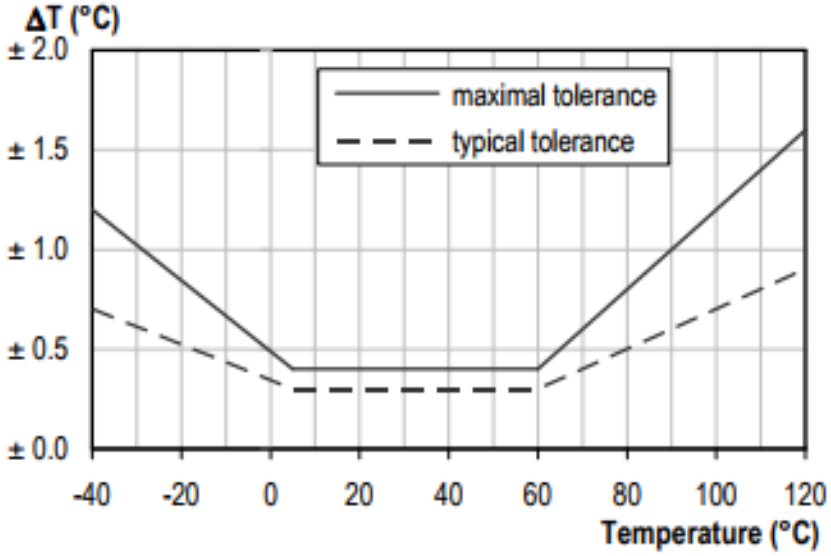

Figure 2 Typical and maximal tolerance for temperature sensor in °C

C02 (ppm)

Target Gas	Formula	Measuring Range	Accuracy	Remark
Carbon Dioxide (CO2)	CO_2	0~2000 ppm	±(50ppm+3% reading value)	Temperature Compensation
		0~5000 ppm		Temperature Compensation

TVOC (ppb)

The Total Volatile Organic Compound (TVOC) output range is from 0ppb to 1187ppb. Values outside this range are clipped. This is calibrated to a typical TVOC mixture in an indoor environment. If the ratio of compounds in the environment is significantly different the TVOC output will be affected as some VOC compounds will have greater or lesser effect on the sensor.

Operating temperature	-5°C to +50°C
Operating humidity	10% to 95% RH
Storage temperature	-40°C to +125°C
Response time	Seconds
VOCs detected	Alcohols, Aldehydes, Ketones, Organic Acids, Amines, Aliphatic and Aromatic Hydrocarbons

Particulate Matter

The Particulate Matter sensor is an optical, digital and universal particle concentration sensor, which can be used to obtain the number of suspended particles in the air, i.e. the concentration of particles, and output them in the form of digital interface. This sensor can be is used to measure concentration of suspended particles in the air or other environmental improvement equipment to provide correct concentration data in time.

Parameter	Index	Unit
Range of measurement	0.3~1.0: 1.0~2.5: 2.5~10	Micrometer (μ m)
Counting Efficiency	50%@0.3 μ m 98%@>=0.5 μ m	
Effective Range (PM2.5 standard)	0~500	μ g/m^3
Maximum Range (PM2.5 standard) *	≥1000	μ g/m^3
Resolution	1	μ g/m^3