



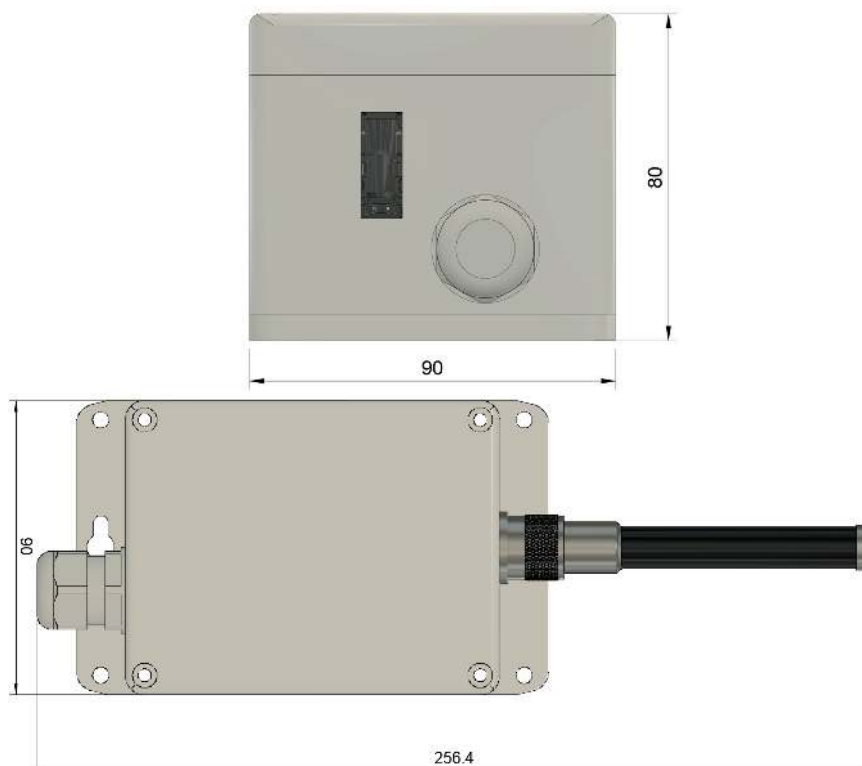
Description

Carbon dioxide is a key indicator of indoor air quality. Thanks to new energy standards and better insulation, houses have become increasingly energy efficient, but the air quality can deteriorate rapidly. Active ventilation is needed to maintain a comfortable and healthy indoor environment, and to improve the well-being and productivity of the inhabitants. Sensirion's SCD30 offers accurate and stable CO₂, temperature and humidity monitoring.

Features

- CO₂, humidity and temperature sensor in one
- Two-channel principle for measuring the carbon dioxide concentration
- Detailed visual statistics if monitored through SL-Control webplatform
- Minimal configuration needed

Dimension



Maximum ratings

Parameter	Sym	Min	Max	Unit
Supply Voltage	V _{in}		240	V AC
Operating Temp.	T _A	-10	+60	°C
Storage Temp.	T _S	-40	+70	°C
Surge / burst input voltage immunity	V _{ps}		2.0	kV

Operating characteristics

Parameter	Sym	Min	Typ	Max	Unit
Supply Voltage Range	V _{in}	100		240	V AC
Power usage I _{out} = 0mA V _{Sup} = 230 V AC	P _{op}		0.43		W

Sensors characteristics

CO2 measurement range	0 - 40'000 ppm
Accuracy	± (30 ppm + 3 % MV) (25 °C, 400 - 10'000 ppm)
Relative humidity measurement range	0 - 100 % RH
Typ accuracy	± 3 % RH (0 - 100 % RH)
Temperature measurement range	-40 °C - 70 °C
Typ accuracy (°C)	± (0.4 °C + 0.023 x (T [°C] - 25 °C))

Wireless characteristics

Parameter	Sym	Min	Typ	Max	Unit
RF frequency range (center frequency)	f _w	2.420		2.480	GHz
RF nominal output power			4.5	8	dBm
Receiver sensitivity			-97	-92	dBm

Approvals

Category	Declaration / Certificates
CE conformity	CE compliant
Hazardous substances	RoHS compliant: Restriction of Hazardous Substance Directive
Housing flame resistance	UL Recognized Flame Class Rating: UL 94 HB
Electromagnetic compatibility (EMC / ERM)	<ul style="list-style-type: none"> • EN 300 328 V2.1.1 (2016-11) • EN 301 489-1 V1.9.2 : 2011 • EN 301 489-17 V2.2.1 : 2012 • EN 61000-6-2 : 2005
Safety	<ul style="list-style-type: none"> • EN 60950-1 : 2006