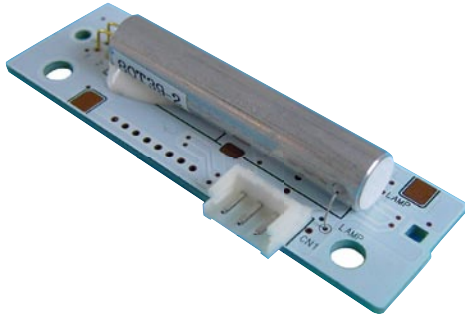


CO₂-MEASUREMENT UNIT Z390B-40



Size of PC board:
65 mm (L) × 20 mm (W) × 9 mm max. (H)

The **CO₂-measurement unit Z390B-40** was developed by NICERA to measure the concentration of CO₂-gas in the air by an optical IR-absorption method. By diffusion the CO₂-gas penetrates into the measurement chamber through a filter without the need of a mechanical pump. The size of the PC board is very small and the response time is about 3 minutes. Therefore this module is used in applications where the concentration of CO₂ varies quite slowly.

PARAMETER

SPECIFICATIONS

General / Electrical Characteristics	Output	PWM Open Collector to GND max. 5 mA
	Operating temperature	+5°C ... +30°C
	Storage temperature	-20°C ... +50°C
	Operating humidity	20% ... 100% non-condensing
	Supply voltage	5 VDC ±0.5 VDC
	Current consumption	80 mA (average), <150 mA (peak)
	Connector (3-pin)	Pin_1 - V+ Pin_2 - V- Pin_3 - PWM Output
	Connector type	JST S3B-EH-A(LF)
	Reverse polarity protection	none
CO ₂ - Measurement	Type of measurement	NDIR
	Measurement range	400 ppm ... 4,000 ppm CO ₂ by volume
	Resolution	< 20 ppm CO ₂
	Accuracy	±100 ppm CO ₂ by volume or 5 % of reading, whichever is greater
	Pressure dependence	0.13 % of reading per mm Hg
	Response time	< 3 minutes for a 90 % step change
	Warm-up time	< 30 seconds operational < 15 minutes full accuracy
PWM-Output- Cycle	Cycle period	1004 ms ± 5 %
	Cycle start High Level	2 ms (nominal)
	Cycle end Low Level	2 ms (nominal)