Product Brief

Model: LAS-101 Series

Carbon Monoxide (CO) and Temperature & Humidity

Ver:1.4

Add: 27F.-5, No. 118, Ciyun Rd., East Dist., Hsinchu City, Taiwan (R.O.C.) 300196
Tel: +886 3 6585198
https://www.kiwi-tec.com

LAS-101 is designed to measure carbon Monoxide, Temperature and Humidity by LoRa long-range and low-power wireless connectivity. It is integrated LoRa wireless technology, CO Sensor knowhow and high-performance MCU solution for various IoT markets usage. With calibrated CO sensor module and compensated Temperature/Humidity sensor integration, the data is ready for use. It is perfect for monitoring air quality in basement parking, garage, Gas ranges/ ovens, Furnaces.

Product features

- LoRaWAN compliant/TELEC Certificate
- High Receiver Sensitivity and long range solution
- Integrated with calibrated CO sensor
  - Accuracy: ± 5% or ±30ppm
  - Range: 0 ~ 500ppm
- Integrated with Compensated Temp/RH sensor
- Micro-USB DC power-in, 5V
- Display CO concentration, Temp/ RH

Wireless	
LoRa Module	Kiwi TLM-922S-P01A module
Frequency	862~932 MHz ISM bands
Tx Power	< 100 mW
Sensitivity	-137 dBm
Receiver	LoRaWAN comply Receiver Gateway
Antenna	2dBi SMA Male connector
Sensor Operation	
Sensing element	CO: Electrochemical Temperature & humidity: CMOS sensor
Response time	CO: < 30 sec. (90%) Temperature: min. 3 sec. ; max. 30sec. at τ63% Humidity: < 8 sec. at τ63%
Accuracy (at 25℃)	CO: ± 5% or ±30ppm Temperature: ±0.5℃ Humidity: ±5 %RH
Repeatability	CO: < ± 5% Temperature: ±0.3℃ Humidity: ±0.3 %RH
Zero Drift	CO: < 5 % /yr. Temperature: < 0.04 ℃/yr. Humidity: < 0.5 %RH/yr.
Measurement range*	CO: 0 ~ 500ppm Temperature: -20 ~ +50℃(Limit by CO sensor) Humidity: 15 ~ 90 %RH (Limit by CO sensor)
Pressure dependence	CO: 800 to 1200 mbar
System Operation	
Temperature	-20 ~ +50 ℃
Humidity	15 ~ 90% RH (Continuous)
Storage temperature	0 ~ +50 ℃. Optimal : 0 ~ +20 ℃.
Warm-up time	≤ 1 min. (at full specs ≤ 15 minutes)
Power supply	Wide range DC power-in, 8~12V/ or Micro-USB DC power-in, 5V
Installation	Wall-mount
Dimension (mm)	Wall-mount: 113.57(H) x 80(W) x 28.79(D)
Case material	ABS
Certification	TELEC/VCCI