

Carbon dioxide, Humidity, Temp., NDIR, 0 to 4,000 ppm, RS232

CO₂ METER

Model : GCH-2018

ISO-9001, CE, IEC1010



LUTRON ELECTRONIC

The Art of Measurement

CO₂ METER + Humidity, Temperature

Model : GCH-2018

FEATURES

* NDIR method principal for CO ₂ (Carbon dioxide) measurement, available for long term operation.
* High repeatability and high accuracy.
* Two probes, one is for CO ₂ /Temp. measurement, the other probe is for Humidity/Temp./Dew point measurement.
* Separate probe, easy operation and convenient for remote measurement.
* CO ₂ function with alarm setting.
* Humidity measurement with fast response time.
* Large S-TN LCD, high contrast, easy readout.
* Data hold function for freezing the desired value on display.
* Records Maximum and Minimum readings with Recall.
* RS232/USB computer interface.
* Microprocessor circuit assures maximum possible accuracy, provides special functions and features.
* Heavy duty & compact housing with hard carrying case, designed for easy carry out & operation.
* Auto shut off is available to save battery life.
* Power supply from batteries or DC 9V adapter in.

GENERAL SPECIFICATIONS

Circuit	Custom one-chip of microprocessor LSI circuit.	
Display	LCD size : 52 mm x 38 mm dual function LCD display.	
Measurement	CO ₂ (Carbon dioxide), Temp. Humidity, Dew point, Temp.	
Unit	CO ₂	ppm
	Humidity	% RH
	Dew point	°C, °F
	Temp.	°C, °F
Response Time	CO ₂ : < 2 min. typically. <i>@ Reach the 63% reading value @ Depend the environment air circulation.</i>	
	Humidity/Dew point : 10 to 30 seconds typically. <i>@ Reach the 85% reading value @ Depend the environment air circulation.</i>	
CO ₂ altitude compensation setting	0 to 9,000 meters.	
Temperature Compensation	Automatic temp. compensation.	
Advanced setting	CO ₂ altitude value setting	
	CO ₂ alarm value setting	
	°C/°F setting	
	Auto power off enable/disable setting	
Alarm setting	For CO ₂ measurement only.	
Data Hold	Freeze the display reading.	
Memory Recall	Maximum & Minimum value.	
Display Sampling Time	Approx. 1 second.	
Power off	Auto shut off saves battery life or manual off by push button.	
Data Output	RS 232/USB PC serial interface.	
	* Connect the optional RS232 cable UPCB-02 will get the RS232 plug.	
	* Connect the optional USB cable USB-01 will get the USB plug.	
Probes no.	Two probes :	
	* Probe 1 is for CO ₂ , Temp. measurement.	
	* Probe 2 is for Humidity, Dew point. Temp. measurement.	
Operating Temperature	0 to 50 °C.	

Operating Humidity	Main instrument : Less than 85% R.H.
	CO ₂ probe : Less than 85% R.H.
	Humidity probe : 0 to 95 %RH.
Power Supply	DC 1.5 V battery (UM3, AA) x 6 PCs, or equivalent.
Power Current	CO ₂ measurement
	Approx. DC 9.6 mA for 90% period.
	Approx. DC 128 mA for 10% period.
Weight	Humidity measurement
	Approx. DC 5.6 mA.
Dimension	Main instrument : 372 g/0.82 LB.
	@ Battery is included.
	CO ₂ probe : 158 g/0.35 LB.
	Humidity probe : 82 g/0.18 LB.
Accessories Included	Main instrument : 173 x 68 x 42 mm (7.9 x 2.7x 1.2 inch)
	CO ₂ Probe : 185 x 38 x 26 mm
	Humidity Sensor Probe : 200 x 23 x 19 mm
Optional Accessories	Instruction manual.....1 PC
	CO ₂ probe.....1 PC
	Humidity probe.....1 PC
	Hard Carrying case..... 1 PC
	ACV to DC 9V adapter
	RS232 cable, UPGB-02
	USB cable, USB-01
	Data Acquisition software, SW-U801-WIN

ELECTRICAL SPECIFICATIONS (23±5 °C)

CO₂ (Carbon dioxide)

CO2 (Carbon dioxide)	Range	0 to 4,000 ppm
	Resolution	1 ppm
	Accuracy	± 40 ppm <i>* ≤ 1,000 ppm.</i>
		± 5% of reading <i>* > 1,000 ppm ≤ 3,000 ppm.</i>
		± 250 ppm typically <i>* > 3,000 ppm, reference only</i>
		Repeatability
23 + 5 °C.		
Temperature	Range	0 °C to 50 °C, 32 °F to 122 °F.
	Resolution	0.1 degree
	Accuracy	°C - 0.8 °C. °F - 1.5 °F.

Humidity/ Temp./Dew point

Humidity/ Temperature

Humidity	Range	10 % to 95 % R.H.
	Resolution	0.1 % R.H.
	Accuracy	≥ 70% RH : ± (3% reading + 1% RH). < 70% RH : ± 3% RH.
Temperature	Range	0 °C to 50 °C, 32 °F to 122 °F.
	Resolution	0.1 degree
	Accuracy	°C - 0.8 °C, °F - 1.5 °F.

Dew Point

°C	Range	-25.3 °C to 48.9 °C
	Resolution	0.1 °C
°F	Range	-13.5 °F to 120.1 °F.
	Resolution	0.1 °F.
Remark : * Dew Point display value is calculated from the Humidity/Temp. measurement automatically. * The Dew Point accuracy is sum accuracy value of Humidity & Temperature measurement..		