DMB05 4-in-1 Multifunction Indoor Air Quality Large LED Display / Monitor / Indicator

New

PM2.5	CO_2	Temp.	Humidity	Emoticon	PMV Indication	RS-485	LED Local Display
0 μg/m³ – 500 μg/m³	0 PPM – 2000PPM	0°C – +50 °C	0 %RH – 100 %RH				
PM2.5	CO_2	Temperature	Humidity	CO2 Indication	Indication	Output	Monitor in Time

Features

- 【4-in-1】 Monitor PM2.5, CO2, temperature & humidity via RS-485 at the same time.
- 【High Brightness LED】Easily recognize measuring types and values.
- 【6-segment CO2 Emoticon】As the local situation and refer to CO2 indication standards to transfer the suitable emoticon
- 【6-segment PMV Indication】Refer to PMV indication to display the real-time body sensing.
- 【Bargain Set】eYc Multifunction PM2.5 Indoor Air Quality Monitor (type : eYc TGP03)

Applications

- Monitor environment for Industrial Process / Plant / IDC / Clean room / Laboratory / Agriculture
- Storage / Hospital / Department store / Office building / Hotel / Restaurant / Library / Banks and so on.

Specification

Display Scale

Display Type	High Brightness LED
Temperature	1.5" (3.8 cm) red LED
Humidity	1.5" (3.8 cm) red LED
PM2.5	2.3" (5.8 cm) yellow LED
CO_2	2.3" (5.8 cm) green LED

Display Range with eYc TGP03

Temperature	0 ... 50 ℃
Humidity	0 ... 100 %RH
PM2.5	0 ... 500 µg / m^3
CO_2	0 ... 2000 PPM

Accuracy

Temperature	± 0.4℃
Humidity	± 3 %RH (at 20 ... 90 %RH)
PM2.5	± 10 µg / m^3 ± 5 % of Reading
CO_2	± 40 PPM ± 3 % of Reading

Input

RS-485

Output

Signal Output	RS-485
Protocol	Protocol
Interface	Modbus RTU
Relay x 2 set	AC 230V / DC 24V, 5A
Address	1 ... FF (16 Hex)
Baud Rate	19200, 9600, 4800, 2400, 115200, 57600, 38400
Frame	N.81, N.8.2, E.8.1, O.8.1

Installation

Installation	Indoor and Wall type

Dimension

Dimension	460 (L) x 295 (H) x 60 (D) mm

Carbon Dioxide (CO2) Indication

Emoticon						
CO_2 (PPM)	350 PPM	450 PPM	600 PPM	1000 PPM	2500 PPM	5000 PPM
Health Implication	Health, normal outside level	Acceptable level	Contaminated air	Drowsiness occurs	Adverse health effects	Time weighted averaging exposure time < 8 hours

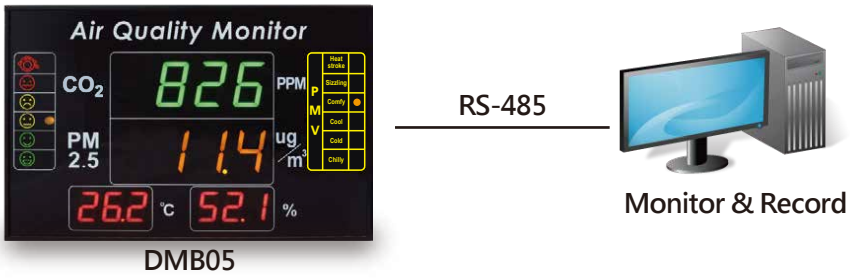
PMV Indication

Range	10 or less	11~15	16~19	20~26	27~31	above 31
Feeling	Chilly	Cold	Cool	Comfy	Sizzling	Heat stroke

Formula : T_m : ℃ ; t_b : dp ℃ ; When air reaches temperature saturation : more water vapor → dew point will be higher

$$\text{PMV index} = T_m - 0.55 \times 1 - \left[\frac{\exp\left[\frac{17.269 \times t_b}{t_b + 273}\right]}{\exp\left[\frac{17.269 \times T_m}{T_m + 273}\right]} \right] \times (T_m - 14)$$

Organization



Diagram