

GTH53

Gas monitoring transmitter/ Indoor



APPLICATIONS

Features

- NDIR (non-dispersive infrared technology) Sensor
- Integrated COMS temperature and humidity Sensor
- Electrochemistry CO & HCHO sensor
- High technical sensor of humidity comes with high accuracy, long-term life and stability
- With exposed sensor to raise sensitivity of CO.
- Remote monitor by RS-485 (Modbus RTU).

Applications

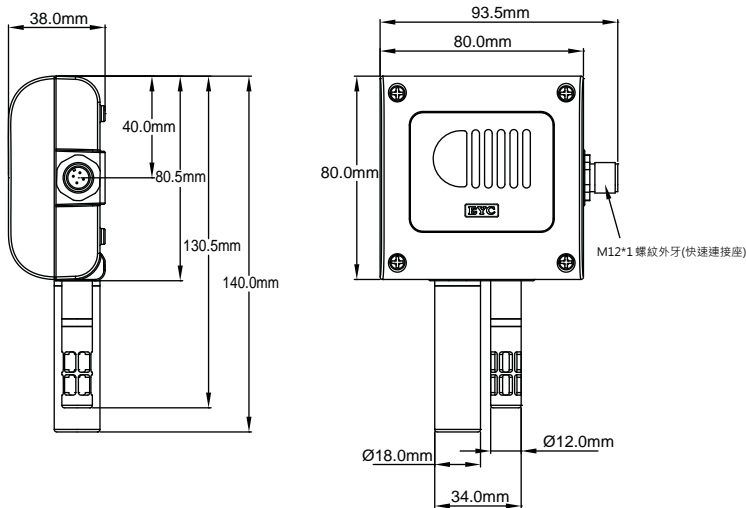
- Monitor and control air quality system for various building.
- Monitor for HVAC process / air conditioning / environmental ventilation control.
- Monitor temperature & humidity, CO, CO₂, & HCHO for house and building.



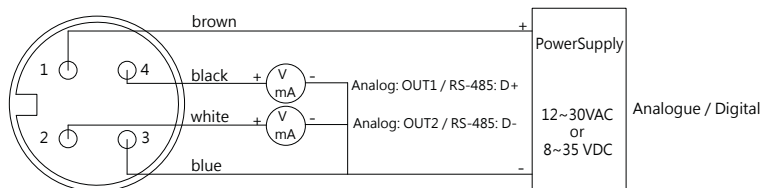
GTH53 - 51 6 6 - A 1 D 3 - 2 Q

Function	OUT1	OUT2	Function Item	OUT1		OUT2		Digital Signal	Option		
				Code	Range	Code	Range				
20 : HCHO+VOC	1 : 4~20mA	1 : 4~20mA	Temp. (T)	A	1 : 0~50°C 2 : 0~60°C 3 : 0~80°C	A	1 : 0~50°C 2 : 0~60°C 3 : 0~80°C	0 : Analogue 1 : RS-485 2 : RS-485 & Analogue	M : M12x1 4P Q : M12x1 8P		
21 : temp. & humidity+CO	2 : 0~20mA	2 : 0~20mA		Humidity (RH)	B	0 : 0~100%	B			0 : 0~100%	
22 : temp. & humidity+CO ₂	5 : 1~5V	5 : 1~5V			CO ₂	C	2 : 2000ppm 5 : 5000ppm			C	2 : 2000ppm 5 : 5000ppm
23 : temp. & humidity+HCHO	6 : 0~10V	6 : 0~10V	CO	D		1 : 100ppm 3 : 300ppm 5 : 500ppm	D			1 : 100ppm 3 : 300ppm 5 : 500ppm	
24 : temp. & humidity+VOC	7 : 0~5V	7 : 0~5V		HCHO	E	1 : 1 ppm 2 : 5 ppm	E			1 : 1 ppm 2 : 5 ppm	
25 : CO+CO ₂	8 : 0~1V	8 : 0~1V	VOC		F	1 : 10 ppm	F			1 : 10 ppm	
26 : CO+HCHO	N : non (digital)	N : non (digital)		as function item	N	0 : non (digital)	N			0 : non (digital)	
27 : CO+VOC											
28 : CO ₂ +HCHO											
29 : CO ₂ +VOC											
31 : temp. & humidity+CO+CO ₂											
32 : temp. & humidity+CO+HCHO											
33 : temp. & humidity+CO+VOC											
34 : temp. & humidity+CO ₂ +HCHO											
35 : temp. & humidity+CO ₂ +VOC											
36 : CO+CO ₂ +HCHO											
37 : CO+CO ₂ +VOC											
38 : CO+HCHO+VOC											
39 : CO ₂ +HCHO+VOC											
41 : temp. & humidity+CO+CO ₂ +HCHO											
42 : temp. & humidity+CO+CO ₂ +VOC											
43 : CO+CO ₂ +HCHO+VOC											
51 : all											

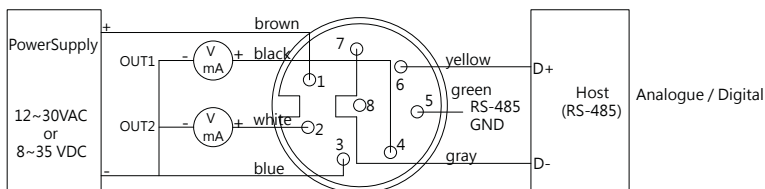
DIMENSION



CONNECTION DIAGRAM



4P M12 connector



8P M12 connector

TECHNICAL SHEET

Input

Sensor Type	NDIR
CO ₂	electrochemistry
CO	CMOS
Temp. & Humidity	electrochemistry
HCHO	MEMS metal oxide sensor
VOC	

Measuring Range

CO ₂	0~2000ppm / 0~5000 ppm
CO	0~500 ppm
Temp.	0~50 °C
Humidity	0~100 %
HCHO	0~5 ppm
VOC	0~10 ppm

Suggestion working range

CO ₂	0~5000 ppm
CO	0~500 ppm
Temp.	0~50°C
Humidity	0~90%
HCHO	0~5 ppm
VOC	0~10 ppm

Output

Analogue output	0~1V/0~5V/0~10V/1~5V/0~20mA/4~20mA
ModBus	RS-485 (Programmable)
Signal connection	3-wire

Linear accuracy (at+23°C ; V=24VDC)

Temp.	±0.3°C
Humidity	±3% of f.s.
CO	±3% of f.s. (best zero)
CO ₂	±50ppm±3%
HCHO	±5% of f.s.
VOC	±5% of f.s.

Sensitivity (CO)	<±10ppm of measured value (measured value)
Drift of zero (HCHO)	< 0.03 ppm
Output calibration adjustment range	software
Warm up period (CO ₂)	<2min. , stable time 20 mins.
Reaction time	
CO ₂	t63 (at+23°C) < 30secs.
CO	t90 (at+23°C) < 60secs.
HCHO	t90 (at+23°C) < 30secs.
CO ₂	約3secs.

Environment

Media measured	air
Working temp.	0~50°C / HCHO: -10~40°C
Working humidity	0~95% (non-cond.) / HCHO: 15~90%
Working influence	CO Tolerance of zero-point : <±10ppm
Temperature drift	HCHO: 0.35% / °C

Electronic regulation

Power supply	8~35VDC/12~30VAC
Current consumption	DC 24V: 72mA / DC 8V: 210mA
	AC 24V: 175mA / AC 12V: 275mA
Electrical connection	M12 connector

Installation

Installation	wall
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Protection

Protection degree	IP20
Electric protection	■ Polarity protection
	■ short circuit

Material

Housing	PC (PC-110)
Probe	CO: POM
	Temp. & Humidity: PC (PC-110)
Weight	168g