



GS43/44

CO₂ Transmitter(Indoor / Duct Type)

| Features |

- Accurate and excellent long-term life cycle
- Measuring up to 10000 PPM
- Voltage or current output and optional RS-485, and display
- Free software configuration

| Applications |

Monitoring air quality and saving energy / Environmental control and monitoring system / Ventilation system control for building, library, train station, supermarket, office / Agriculture, green houses, fruit and vegetable storage, mushroom farming, hatcheries and incubators

| Specification |

Display

Display	Without backlight
Digit	5 digits(upon request)
Digit height	5.56 mm

Input

Sensor type	NDIR sensor
Measuring range	2000 / 5000 / 10000 PPM

Output

Output	4 ... 20 mA + RS-485
Signal connection	3-wire
Sensitivity	± 1 PPM $\pm 1\%$ of measured value
Load resistance	Voltage output : ≥ 10 K Ω Current output : < 250 Ω
linear accuracy (at +25°C)	400 ... 2000 PPM : ± 40 PPM $\pm 3\%$ of reading 2000 ... 10000 PPM : ± 250 PPM $\pm 3\%$ of reading
Output calibration (ZERO & SPAN)	Factory software calibration
Warm-up time	< 2 min. ; stable time 20 mins.
Response time(t90)	GS43: < 2 min. ; GS44 : < 6 min.
Sampling time	About 6 sec.
ADC default	2000 PPM : On ; 5000 PPM / 10000 PPM : Off

Environment

Medium	Non-aggressive gas(HVAC system)
Operating Temp.	0 ... 50°C
Operating Humid.	Tarps : 0 ... 95%RH(Non-condensing) Non-woven : 0 ... 85%RH(Non-condensing)
Storage temp.	-20 ... +60°C

Electrical

Power supply	DC 12 ... 36 V & AC 24 V $\pm 10\%$
Current consumption	DC : 37 mA / AC : 70 mA
Starting current	DC : > 200 mA / AC : > 210 mA
Electrical connection	M12 (5P) connector with 2 m cable

Installation

Installation	Indoor : Wall mount
	Duct : Flange mount

Protection

IP rating	GS43 : IP54 / GS44 : IP64
Electrical protection	<input checked="" type="checkbox"/> Reverse polarity <input checked="" type="checkbox"/> Over-voltage <input checked="" type="checkbox"/> Short-circuit

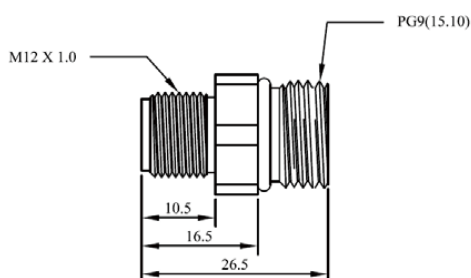
Certification

Certification	CE
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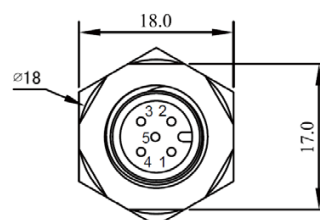
Material

Housing	PC fire-proof(PC - 110)(UL94V-2)
Filter for duct type	POM
Ventilation-cloth	2000 PPM : Non-woven 5000 / 10000 PPM : Tarps
Weight	GS43 : 126 g / GS44 : 155 g

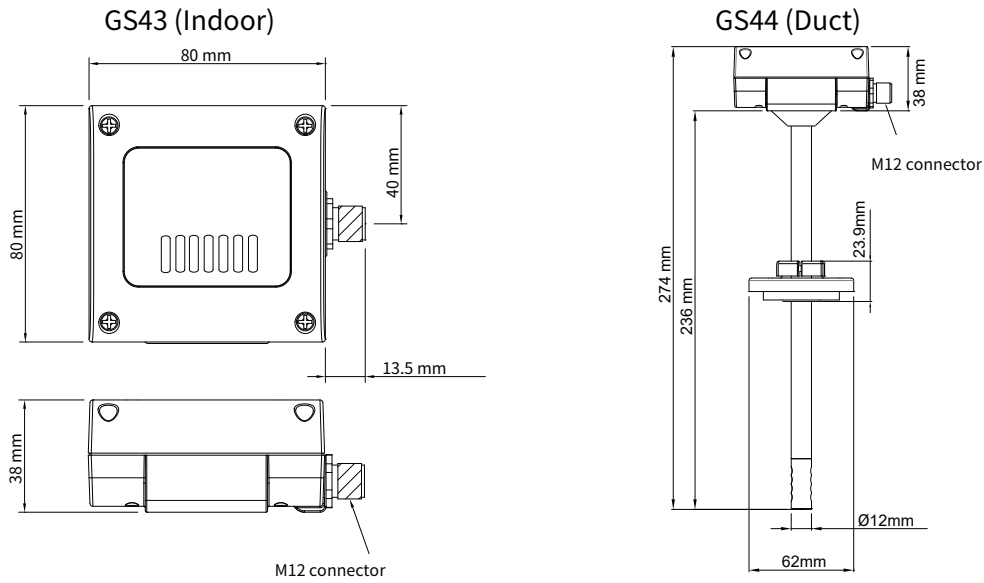
| Electric Connector | Unit : mm



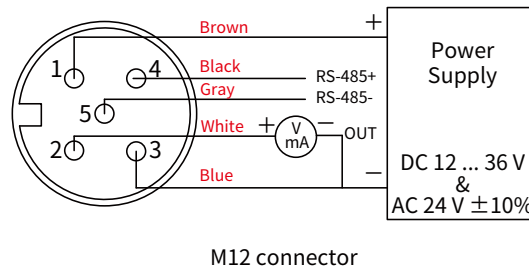
M type (M12-5PIN connector)



| Dimension |



| Diagram |



*Please make sure the product and the device which connect with RS-485 are on common ground, avoid damaged product.

| Ordering Guide |

Product ordering number	Installation	Output	Range	Electrical connection	Display
GS43-1132-2M	Wall mount	4 ... 20 mA + RS-485	0 ... 2000 PPM	M12 connector	No
GS43-1132-2MD	Wall mount	4 ... 20 mA + RS-485	0 ... 2000 PPM	M12 connector	Yes
GS43-1135-2M	Wall mount	4 ... 20 mA + RS-485	0 ... 5000 PPM	M12 connector	No
GS43-1135-2MD	Wall mount	4 ... 20 mA + RS-485	0 ... 5000 PPM	M12 connector	Yes
GS43-1138-2M	Wall mount	4 ... 20 mA + RS-485	0 ... 10000 PPM	M12 connector	No
GS43-1138-2MD	Wall mount	4 ... 20 mA + RS-485	0 ... 10000 PPM	M12 connector	Yes
GS44-1132-2M	Duct type	4 ... 20 mA + RS-485	0 ... 2000 PPM	M12 connector	No
GS44-1135-2M	Duct type	4 ... 20 mA + RS-485	0 ... 5000 PPM	M12 connector	No
GS44-1138-2M	Duct type	4 ... 20 mA + RS-485	0 ... 10000 PPM	M12 connector	No