



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 / 0 ... 10 V
Modbus	RS-485
Signal connection	3-wire
Sensitivity	±1 PPM ±1% of measured value
Load resistance	Voltage output : $\geq 10 \text{ K}\Omega$ Current output : $< 250 \Omega$
linear accuracy (at +25°C)	400 ... 2000 PPM : $\pm 40 \text{ PPM} \pm 3\%$ of reading 2000 ... 10000 PPM : $\pm 250 \text{ PPM} \pm 3\%$ 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(4P or 5P)metal connector with 2 m cable or terminal(cable gland)

Installation

Installation	Indoor : Wall mount
	Duct : Flange mount

Protection

IP rating	GS43 : IP54 / GS44 : IP64
Electrical protection	■ Polarity protection ■ Over-voltage ■ Short-circuit

Certification

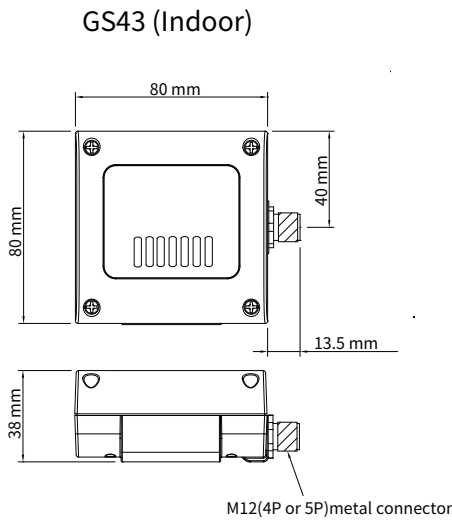
Certification	CE
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Material

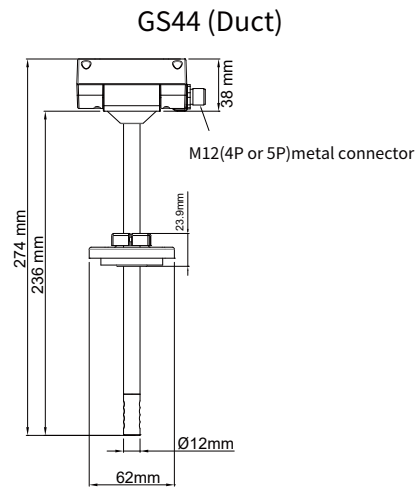
Housing	PC fire-proof(PC - 110)(UL94V-2)
Filter for duct type	POM
Ventilation-cloth	2000 PPM : Non-woven 5000 / 10000 PPM : Tarps
Weight	GS43 : 126 g / GS44 : 155 g

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

| Dimension |

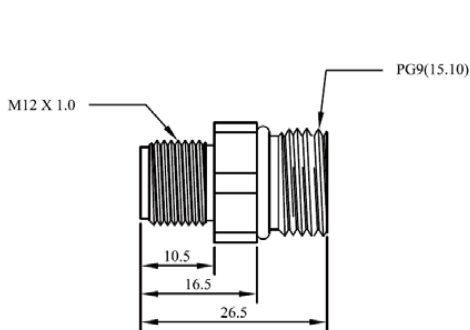


M type (4P) : RS-485 or analog
 M type (5P) : RS-485 + analog

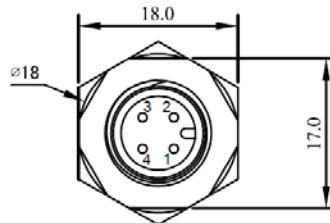


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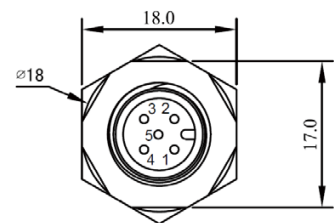
| Electric Connector | Unit : mm



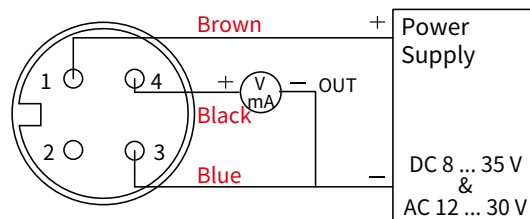
【M type (M12-4PIN metal connector)】
 RS-485 or analog



【M type (M12-5PIN metal connector)】
 RS-485+analog

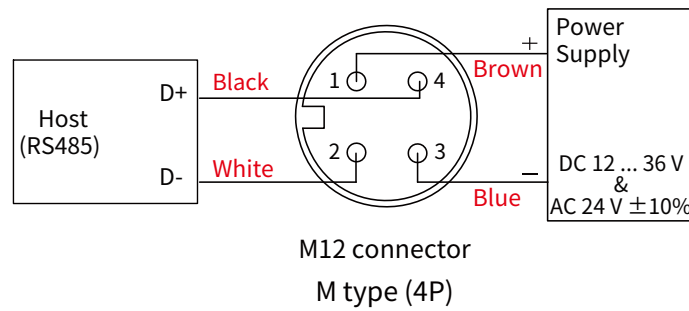


| Analog Diagram |

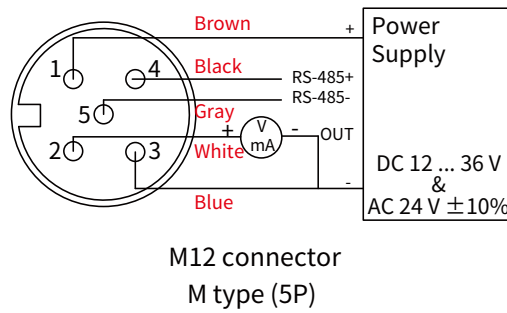


M12 connector
 M type (4P)

| RS-485 Diagram |



| Analog+RS-485 Diagram |



| Ordering Guide |

Installation	Input	Output	Power supply	CO ₂ range	Modbus	Option
GS 43	- 1	1	3	2	- 0	D
43 : Indoor 44 : Duct	1 : CO ₂	1 : 4 ... 20 mA 6 : 0 ... 10 V N : RS-485	3 : DC 12 ... 36 V & AC 24 V ± 10%	2 : 2000 PPM 5 : 5000 PPM 8 : 10000 PPM N : RS-485	0 : Analog 1 : RS-485 2 : RS-485 & analog * M type - M12(5P) metal connector	D : Display M : M12(4P or 5P) * Metal connector (with 2 m cable)