



GS43/44

CO2 Transmitter Indoor / Duct Type



Application

〈 Feature 〉

- 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

〈 Application 〉

- 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 readout	5 digits (upon request)
display	LCM with backlight
digit height	5.56mm

Input

sensor type	NDIR sensor
measuring range	0 ... 2000 / 5000 / 10000 PPM

Output

output	4 ... 20mA / 0 ... 20mA 0 ... 10V / 0 ... 5V / 0 ... 1V
modbus	RS-485
signal connection	3-wire
load resistance	voltage output : $\geq 10K\Omega$ current output : $< 250 \Omega$
linear accuracy (at +25 °C)	400 ... 2000 PPM : $\pm 40 \text{ ppm} \pm 3 \%$ of reading. other : $\pm 50 \text{ PPM} \pm 3 \%$ of reading
output calibration (ZERO & SPAN)	factory software calibration
warm up time	$< 2 \text{ min.}$
response time (t90)	GS43: $< 2 \text{ min.}$; GS44 : $< 6 \text{ min.}$
sampling time	about 6 secs.
ADC default	2000 PPM : on ; 5000 PPM / 10000 PPM : off

Environment

media measured	non-aggressive gas (HVAC system)
working temperature	0 ... 50 °C
working humidity	tarps : 0 ... 95 %RH (non-cond.) ; non-woven : 0 ... 85 %RH (non-cond.)
storage temperature	-20 ... + 60 °C

Electrical

power supply	DC 12 ... 36V & AC 24V $\pm 10 \%$
current consumption	DC : 37 mA / AC : 70 mA
starting current	DC : $> 200 \text{ mA}$ / AC : $> 210 \text{ mA}$
electrical connection	M12(4P or 5P) metal connector with 2m cable or terminal (cable gland)

Installation

installation	indoor type : wall-mounting duct type : flange
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Protection

protect degree	GS43 : IP54 ; GS44 : IP64
electric 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

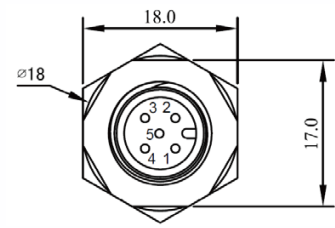
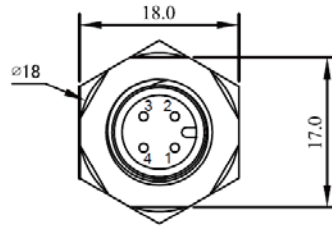
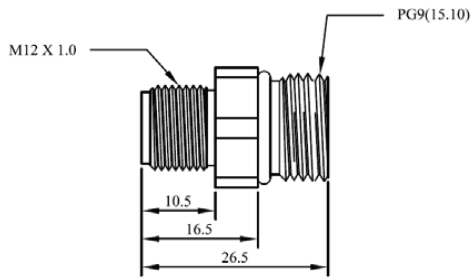
Ordering Guide

type	GS	43	—	1	1	1	2	—	0	M
installation	wall	43	—							
	duct	44	—							
input	CO2			1						
output	4 ... 20 mA				1					
	0 ... 20 mA				2					
	0 ... 10 V				6					
	0 ... 5 V				7					
	0 ... 1 V				8					
power supply	RS-485				N					
	12 ... 36 VDC 24 $\pm 10\%$ VAC & 12 ... 36 VDC					1 3				
CO2 range	2000 PPM						2			
	5000 PPM						5			
	10000 PPM						8			
	RS-485						N			
modbus	analogue								0	
	RS-485								1	
	RS-485 & analogue ※ M type - M12 (5P) metal connector								2	
option	M12 (4P or 5P) ※ metal connector (with 2 m cable) display									M D

Electric Connector

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

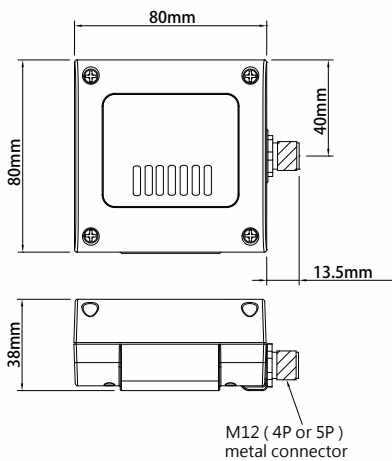
【 M type (M12-5PIN metal connector) RS-485+analogue



unit : mm

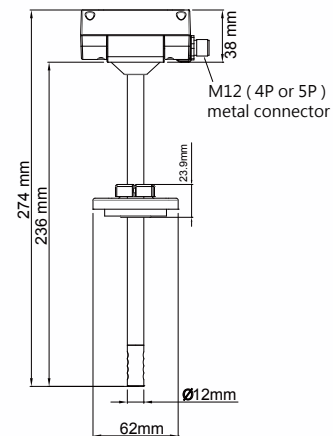
Dimension

【 GS43 (indoor) 】



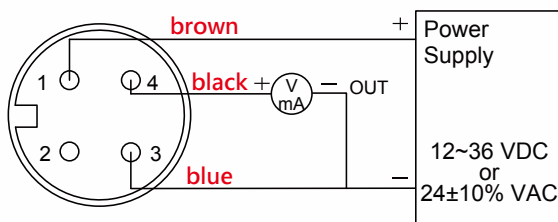
M type (4P) : RS-485 or analogue
M type (5P) : RS-485 + analogue

【 GS44 (duct) 】



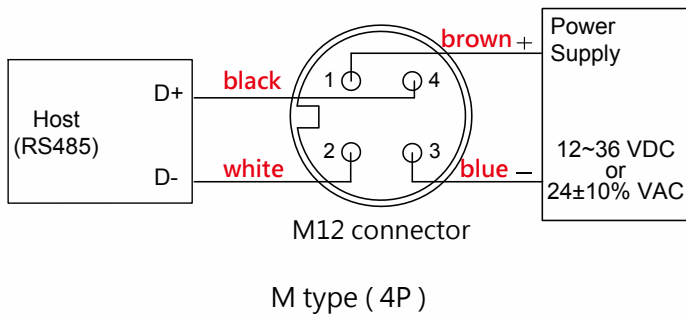
M type (4P) : RS-485 or analogue
M type (5P) : RS-485 + analogue

Analogue Diagram



M type (4P)

RS-485 Diagram



Analogue + RS-485 Diagram

