

KWS-5000 Dissolved CO2 Sensor in Water

Introduction

KWS-5000 is a gas detection module based on NDIR infrared absorption principle, which is suitable for detecting the concentration of carbon dioxide in aqueous solution. KWS-5000 adopts a patented optical cavity, adopts convection diffusion ventilation method and protective cover, which not only accelerates the gas convection diffusion speed, but also waterproof and breathable. Unique waterproof structure, detachable, easy to clean the outer casing of the sensor.



Feature

- Unique waterproof structure, can be disassembled
- Lightweight housing for easy field installation
- Rich interface, convenient for customers to choose
- Provides zero calibration, sensitivity calibration and clean air calibration

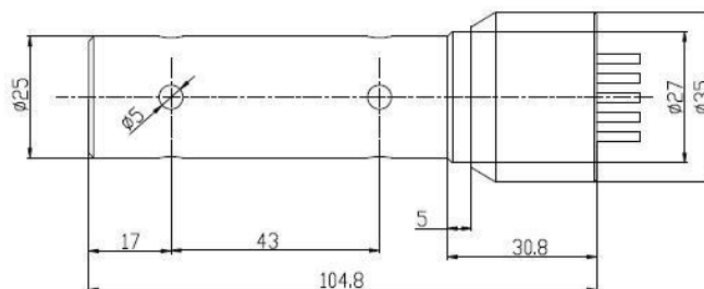
Application

- Aquaculture
- Agricultural greenhouse environmental monitoring
- Biopharmaceutical Environmental Monitoring
- Water Quality Analysis
- Solution analysis

Technical Specifications

Item	Parameter
Measuring Range	2000ppm/5000ppm/10000ppm
Response Time	<20 sec
Protection Level	IP68
Storage Temperature	-20 ~ 80°C
Operation Temperature	-20 ~ 60°C
Output	RS485 / 4-20mA / voltage, IIC, UART, PWM
Power Supply	DC 5V (RS485 / 4-20mA is DC12V power supply)
Size	Φ27*105mm
Probe Cable Length	Default 0.5m
Maximum Working Pressure	1.5 bar
Product Material	ABS

Dimensions



Signal interface definition

There are 3 kinds of signal output like below:

SN	Wire color	Signal definition		
		UART+IIC interface	UART+485 interface	UART+4-20mA interface
1	Red	5VDC	12V	12V
2	Black	GND	GND	GND
3	Green	Uart_RXD	Uart_RXD	Uart_RXD
4	Yellow	Uart_TXD	Uart_TXD	Uart_TXD
5	White	IIC_SDA	RS485A	4-20mA (0.4-2V) output
6	Brown	IIC_SCL	RS485B	Reserved

Order information

Tpye	Measure range	Signal	Protocol	Cable length	Description	
KWS5000					Product type	
KWS5000	2000				0-2000ppm accuracy ± 20 ppm (default)	
	5000				0-5000ppm accuracy ± 50 ppm	
	10000				0-10000ppm accuracy ± 300 ppm	
	XXXX				customize range	
			485			RS485 interface
			IIC			IIC interface
			Iout			4-20mA current
			Vout			0-5V Vout put
			PWM			PWM output
				RTU (default)		Modbus RTU Protocol
				ACSII		Modbus ASCII Protocol
				self defined		customized protocol
						0.5m (default)
	KWS5000	2000	485	RTU	0.5	