# RK300-18 O<sub>3</sub> Sensor

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The  $O_3$  sensor is a high-performance, versatile electrochemical series module that uses a three-electrode electrochemical gas sensor and a high-performance microprocessor with different gas sensors to measure the corresponding gas. It can accurately measure the gas concentration in the environment, with digital output and analog voltage output, which is convenient for users to use and debug, which greatly shortens the user's design and development cycle. It combines electrochemical sensors and circuits to meet customers' needs for different gas detection applications.

## **FEATURES**

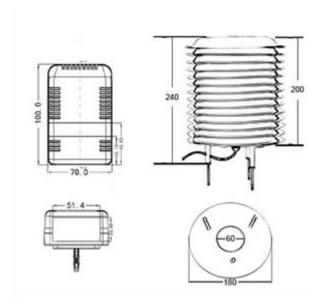
- High sensitivity
- Fast response
- High precision, wide measuring range
- Effective resistance to water vapor
- Excellent stability
- Easy installation

## **SPECIFICATIONS**

Item	Technical Specification
Range(concentration)	0-20ppm
Accuracy	±2%F•\$ (25℃)
Resolution	0.1ppm
Supply	Mark on the label
Output	RS485
Power Consumption	<15mA@24V(4-20mA)
Warm Up Time	3min
Response Time	<15s
weight	800g
Operating Temperature	-20℃-+50℃@15-80%RH
Storage	-40-70℃@20%-90%RH
Shell Material	ABS

## DIMENSION

Unit:mm



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## ELECTRICAL CONNECTIONS

Connector (cable)	RS485	Voltage
Red	V+	V+
Black	V-	V-
Yellow	RS485A	Signal+
Green	RS485B	

Note: This product has been tested and complies with European CE requirements for EMC directive.

**Communication Protocol (MODBUS)** 

Transmission mode: MODBUS-RTU, Baud rate: 9600bps, Data bits:8, Stop bit:1, Check bit:no

Slave address: the factory default is 01H (set according to the need,00H to FFH)

The 03H Function Code Example: Read The O<sub>3</sub> Concentration

Host Scan Order(slave address:0x01)

01 0<u>3 00 00 00 01</u> 840A

Slave Response

01 03 02 00 0F F840

O<sub>3</sub>: (000F)H=(15)D=15/10=1.5ppm

The 06H Function Code Example: Modify the slave address

Host Scan Order (Changed the 02H to 01H):

02 06 00 30 00 01 4836

Slave Response:

02 06 00 30 00 01 4836

If you forget the original address, you should use the broadcast address(FEH) (ensure that no other devices on the bus at this time).

#### Note:

- 1. All underlined is fixed bit;
- 2. The last two bytes is CRC check command.

## WARRANTY

This product is warranted to be free of defects in materials and construction for a period of 12 months from date of lead time.

Liability is limited to repair or replacement of defective item.

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