

RK300-14 NO2 Concentration Sensor

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RK300-14 NO₂ Concentration sensor adopts professional test NO₂ concentration sensor probe as the core detection device; it has the characteristics of wide measurement range, high accuracy, good linearity, good versatility, convenient use, easy installation, long transmission distance, and moderate price.

APPLICATION

- Medical equipment
- HVAC and air conditioning
- Industrial control
- Environmental monitoring

SPECIFICATIONS

Item	Specification
Measuring range	0-20ppm
Principle	Electrochemistry
Supply	Mark on the label
Resolution	0.001ppm
Accuracy	±3% @25°C
Response time	≤15s
Output	RS485
Power consumption	≤0.2W
Operating temperature	-20-+50°C
Relative humidity	0-95%RH (No condensation)
Shell Material	ABS

DIMENSION



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ELECTRICAL CONNECTIONS

Connector (cable)	RS485
Red	V+
Blue	V-
Yellow	485A
Green	485B

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 EFH)

- **The 03H Function Code Example: Read The NO₂ concentration**

Host Scan Order (Slave addr: 0x01):

01 03 9C 42 00 02 4A4F

Slave Response:

01 03 04 00 00 0F 5C FFFA

NO₂ : (00000F5C)H=(3932)D, 3932/**1000**=3.932ppm

- **The 10H Function Code Example: Modify the slave address (write address must be FFH, fixed command, ensure that no other devices on the bus)**

Host Scan Order (Changed to 05H):

FF 10 C3 60 00 01 02 00 05 D49B

Slave Response:

05 10 C3 60 00 01 3C17

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PARAMETER SELECTION TABLE

Remark	Series	Type	Indoor /Outdoor	Range	Output	Supply	Cable Length	
RK								
	300							
		14						
			A					Indoor
			B					Outdoor
				A				0-10ppm
				X				Other
					A			4-20mA
					B			RS485 (modbus-RTU)
					X			Other
						A		12-24VDC
						X		Other
							2000	Units:mm (typ)
							3000	Units:mm
							...	Units:mm

Note:

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

Example: RK300-14BAAA2000 Outdoor, Range: 0-10ppm, output: 4-20mA, Supply: 12-24VDC, Cable Length: 2m.



Complies with applicable CE directives.

Manual subject to change without notice. Version 1.0

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