

RK300-09 SO₂ Concentration Sensor

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RK300-09 SO2 Concentration sensor adopts professional test SO2 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℃
Response time	≤15s
Output	RS485
Power consumption	≤0.2W
Operating temperature	-20~+50℃
Relative humidity	0-95%RH（No condensation）
Shell Material	ABS

DIMENSION



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.

PARAMETER SELECTION TABLE

Remark	Series	Type	Indoor /Outdoor	Range	Output	Supply	Cable Length	
RK								
	300							
		09						
			A					Indoor
			B					Outdoor
				A				0-20ppm
				X				Other
					A			4-20mA
					B			RS485 (modbus-
					X			Other
						A		12-24VDC
						X		Other
							2000	Units:mm (typ)
							3000	Units:mm
							...	Units:mm

Example: RK300-09BAAA2000 Outdoor,Range:0-20ppm, output:4-20mA,Supply:12-24VDC,Cable Length:2m.

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 SO2 concentration

Host Scan Order(Slave addr:0x01):

01 03 9C 42 00 02 4A4F

Slave Response:

01 03 04 00 00 0F 5C FFFA

SO₂ :(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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Note:

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



Complies with applicable CE directives.

Manual subject to change without notice. Version 1.0

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