

RK300-07 NH₃ Concentration Sensor

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SPECIFICATIONS

Item	Specification
Measuring range	0-100ppm
Principle	Electrochemistry
Supply	Mark on the label
Resolution	0.01ppm
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

RK300-07 Ammonia gas sensor adopts professional test ammonia 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

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							
		07						
			A					Indoor
			B					Outdoor
				A				0-100ppm
				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

Example: RK300-07BAAA2000 Outdoor,Range:0-100ppm, 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 FCH)

- The 03H Function Code Example: Read The NH₃ concentration

Host Scan Order(Slave addr:0x01):

01 03 00 06 00 01 640B

Slave Response:

01 03 02 00 10 7835

NH₃ :(0010)H=(16)D,16/100=0.16ppm

- The 06H Function Code Example: Modify the slave address(fixed command,ensure that no other devices on the bus)

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

01 06 01 00 00 02 09 F7

Slave Response:

01 06 01 00 00 02 09 F7

5

Note:

- All underlined is fixed bit;
- 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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8

6