

RK330-01 Atmospheric Temperature, Humidity & Pressure Sensor

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1

Atmospheric Temperature, Humidity, Pressure Sensor is a professional measurement of air temperature, relative humidity, Pressure Sensors are built-in the water-proof and anti-UV shelter. It is widely used in agriculture, forestry, meteorology as well as a climate chamber, warehousing and other places.

FEATURES

- High Sensitivity
- Fast response time
- Long service life
- Low consumption
- Good stability of output

Parts:

1. Sensor: 1
2. Radiation shield and bracket(optional): 1
3. Clamp(optional): 1

2

SPECIFICATIONS

Item	Technical Specification		
	Temperature	Humidity	Pressure
Range	-40-60°C	0-100%RH	100-1100hPa
Resolution	0.01°C	0.1%RH	0.01hPa
Accuracy	±0.2°C (25°C) ±0.4°C (-25-85°C)	±2%RH (20-60%) ±3%RH (<20%) ±4%RH (>60%)	±0.12hPa (950-1050hPa @25°C) ±1.00hPa (950-1050hPa 0-40°C)
Supply	Mark on the label		
Output Signal	SDI-12		
Current Consumption	<2mA		
Operating Temperature	-40°C ~ +80°C		
Ingress Protection	IP65		
Storage	10-60°C @ 20%-90%RH		
Shelter material	Anti-UV engineering plastics		

3

OUTPUT CHARACTERISTICS

● Current

$T = (I - 4) / 16 * 100 - 40$, (where T = temperature(°C), I = output current(mA))

$H = (I - 4) / 16 * 100\%$, ((where H = humidity(RH), I = output current(mA)))

● Voltage

$T = V / V_{full\ scale} * 100 - 40$, (where T = temperature(°C), V = output voltage(V), $V_{full\ scale} = 5V$ or $10V$)

$H = V / V_{full\ scale} * 100\%$, (where H = humidity(RH), V = output voltage(V), $V_{full\ scale} = 5V$ or $10V$)

● RS485

If the transmission distance is over 100m, please add a 120Ω terminal matching resistances on the front end and back end of bus interface respectively. Attach communication protocol.

MOUNTING

- Install the product in stable environment area, avoid direct sunlight, away from windows air-conditioning, heating and other equipment. Otherwise it will cause measurement inaccuracies.
- Fixing rail is optional.

4

ELECTRICAL CONNECTIONS

Cable	SDI-12
Red	V+
Yellow	Data
Green	V-

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

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.

5

Communication Protocol(SDI-12)

No.	Command	Sensor return	Command name
1	?!	0	Read sensor address
2	a!	013DLQIFENGATHP-1170SN00 0	Distinguish sensor
3	aAb!	b	Change the address, Change address a to b
4	aM!	00014 0	Start measuring
5	aD0!	0+49.3+27.10+15.6+990.76	a+ humidity+ temperature+ Dew point temperature+ Pressure

1. 'a' , 'b' is the sensor address.

2. Band rate: 1200, Start bit: 1, Data bits: 8, Check bit: NONE, Stop bit: 1, sensor address: factory default

0.

PARAMETER SELECTION TABLE

Remark	Series	Type	Parameter	Output	Accessory	Cable Length	
RK							
	330						
		01					
			A				Temperature , Humidity, Pressure
			B				Temperature , Humidity,
			C				Temperature
			D				Humidity
				A			SDI-12(customized)
				B			0-5V
				C			0-10V
				D			RS485
				E			IIC
				F			4-20mA
					A		With radiation shield
					B		With clamp
					N		Without any accessory
						1500	Units:mm (typ)
						3000	Units:mm
						...	Units:mm

Example: RK330-01AAA1500 Parameter: temperature & humidity, Pressure, Output: SDI-12 With 11 plates radiation shield Cable Length:3m



Complies with applicable CE directives.

Manual subject to change without notice. Version 1.0

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6

8