



Handling Manual Rain Sensor CNT-WJ24



1 Precautions for safety

Please read precautions before use for correct usage.

※ Specifications and exterior dimensions stated in this manual are subject to change without notice to improve product performance.

Warning

1. This product is not manufactured as a safety device and thus must be used with a double safety device if used for controlling devices with concern of personal accidents, serious damage to peripheral devices, and enormous property damage.
2. Do not connect, check or inspect when power is supplied.
3. To use this product, it must be mounted on a panel. Otherwise, it may cause electric shock.
4. When connecting power, check terminal numbers before connection.
5. The device shall not be disassemble, process, modify or repair.

Caution

1. Before installing this equipment, please read the handling method, safety regulations, and use only within the specified specifications or related capacity.
2. Do not wire or install the motor or solenoid to a large inductive load.
3. When extending sensor, use a seal wire and do not extend longer than necessary.
4. Do not use parts that generate Arc when opening or closing directly with the same power or in close proximity.
5. Keep power cables away from high-voltage cables and do not install in places with too much water, oil or dust.
6. Avoid direct sunlight and do not install in a place exposed to rain.
7. Do not install in a place with strong magnetism, noise, vibration or impact.
8. Keep away from places that directly generate strong alkaline or strong acidic substances.
9. When installing in the kitchen, do not spray water to the equipment for cleaning purposes.
10. Do not install in a place where temperature/humidity exceeds the normal rating.
11. Do not cut or scratch the sensor wire.
12. Keep the sensor line away from signal lines, power, motor, and load lines and use independent piping.
13. Note that if this product is arbitrarily disassembled or modified, follow-up service may not be available.
14. ⚠ indication on the terminal wiring diagram is a safety statement referring to warnings or cautions.
15. Do not use the product near devices (high-frequency welder, high-frequency machine, high-frequency radio, and large SCR controller) that generate strong high-frequency noise.
16. The product used other than the purpose specified by the manufacturer may result in personal injury or property damage.
17. Keep the product out of reach of children as it is not a toy.
18. Installation must be performed by experts or qualified person.
19. Conotec shall not be responsible for any damages caused by failure to comply with warnings or caution statements aforementioned or by negligence of consumers.

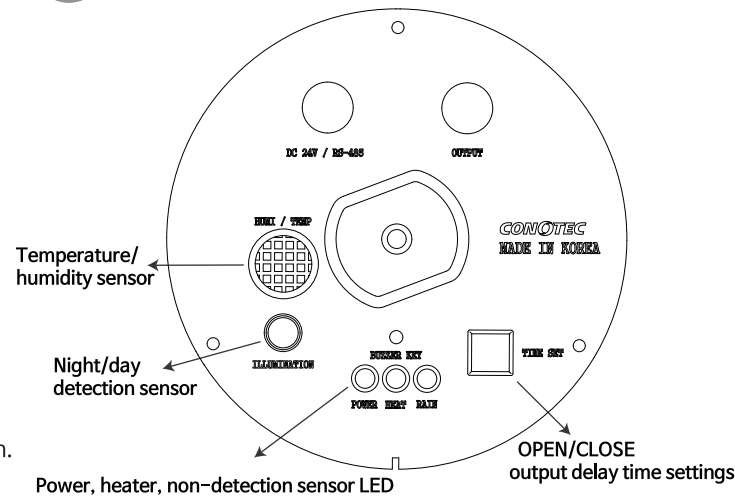
Danger

- Caution: danger of electric shock
 - Electric shock – Do not contact the AC terminal while being energized. There may be an electric shock.
 - When checking the input power, block the input power.

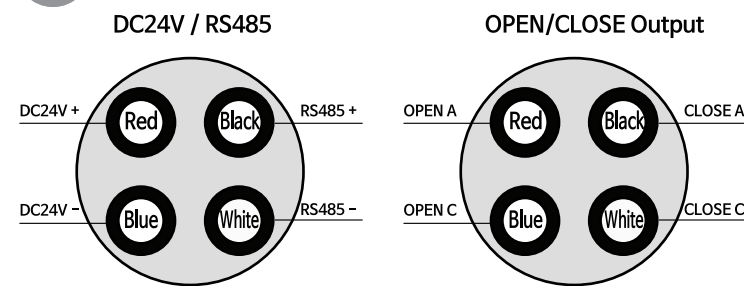
2 Model composition

Model	Power	Control method	Sensor	Function
Rain sensor	24VDC 500mA or more	Relay contact (2EA)	Temperature NTC10K	Rain detection
			Humidity SYH-2R	Output control RS485 communication

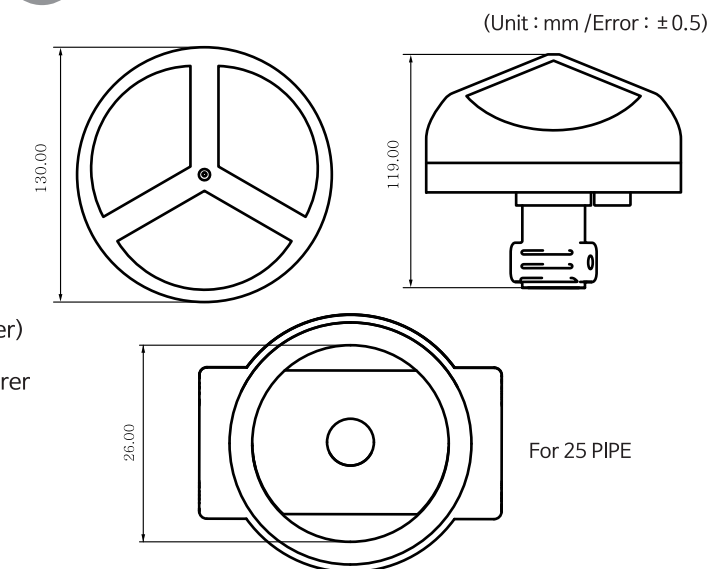
3 Name of each part



4 Wiring diagram



5 Spec of product exterior



6 Menu settings

1 TIME SET

※ Set delay time of OPEN/CLOSE output operated according to rain detection.

OPEN delay time	CLOSE delay time	OPEN delay time	CLOSE delay time
0 0 SEC	10 SEC	4 2 MIN	10 SEC
1 10 SEC	10 SEC	5 0 SEC	30 SEC
2 30 SEC	10 SEC	6 10 SEC	1 MIN
3 1 MIN	10 SEC	7 30 SEC	2 MIN

2 Communication menu

Function	Range	Factory setpoint
CC-Link	1~254, Common link : 255	1
Communication speed	1200,2400,4800,9600,19200 BPS	9600 BPS

7 Detailed description of functions

- 1 If rain is not detected on all three sides of the detection plate and only 1-2 sides are detected, the sensor deems that there is dirt on the detection plate and buzz goes off.
- 2 When the rain stops and all the rain dries on the 3 sides of the detection plate, the OPEN output operates after the OPEN delay time.
- 3 If rain is not detected on all three sides of the detection plate and only 1-2 sides are detected, the sensor deems that there is dirt on the detection plate and buzz goes off.
- 4 When buzz goes off, check the detection plate to remove dirt or press the buzzer key once to cancel the buzz.
- 5 Day/night is determined by day/night detection sensor to prevent dew condensation on the detection plate at night by heating.

8 Communication spec

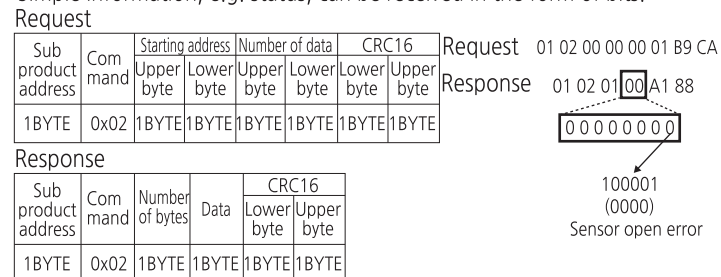
Applicable specification	According to EIA RS485
Max. number of connections	32 units (However, Address setting can be from 1 - 254)
Communication method	2 wire half-duplex, asynchronous
Communication speed	1200/2400/4800/9600/19200bps(selectable)
Communication distance	Within 1.2Km
Communication protocol	Modbus
Start Bit, Stop Bit	Fixed in 1 Bit
Parity Bit, Data Bit	Parity Bit: None, Data Bit: Fixed in 8 Bit

9 About communication

- * Equipped with built in protocols RS485 MODBUS RTU.
- * Asynchronous 2-wire half-duplex communication method
- * Communication distance: Within 1.2Km
- * Communication speed : 1200 / 2400 / 4800 / 9600/ 19200Bps
- * Start Bit : 1 Bit, Stop Bit : 1 Bit, Parity Bit : None
Data Bit : 8 Bit

<Func 0x02 : Read Discrete Inputs>

Simple information, e.g. status, can be received in the form of bits.

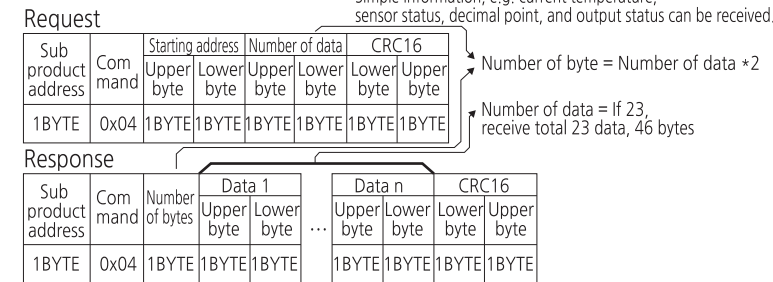


MAP

NO	Address	Description	Range	Unit	Factory setpoint
100001	0000	Temperature sensor open error	bit0:0:No error, 1:Open error		
		Temperature sensor short error	bit1:0:No error, 1:Short error		
		Humidity sensor open error	bit2:0:No error, 1:Open error		
		Humidity sensor short error	bit3:0:No error, 1:Short error		

<Func 0x04 : Read Inputs Registers>

Simple information, e.g. current temperature, current humidity, sensor status, output status can be received.

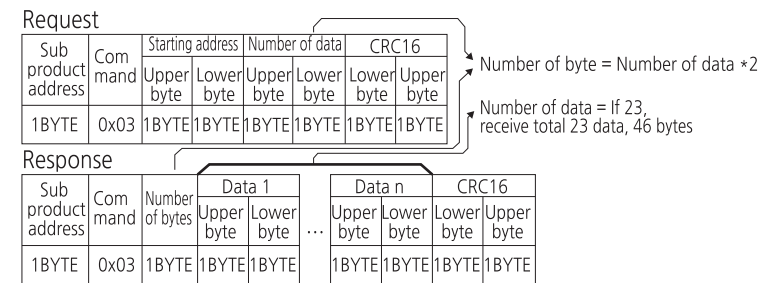


MAP

NO	Address	Description	Range	Unit	Factory setpoint
300001	0064	Current temperature	-55.0 ~ 99.9	℃	
300002	0065	Current humidity	10 ~ 90	%	
300003	0066	Temperature sensor	bit0:0:No error, 1:Open error bit1:0:No error, 1:Short error		
		Humidity sensor	bit2:0:No error, 1:Open error bit3:0:No error, 1:Short error		
		Output status	bit4:CLOSE, 0:OFF, 1:ON bit5: ON, 0:OFF, 1:ON		
		illumination sensor	bit6: 0: Day, 1: Night bit7: 1번판 0:미감지 1:감지 bit8: 2번판 0:미감지 1:감지 bit9: 3번판 0:미감지 1:감지		

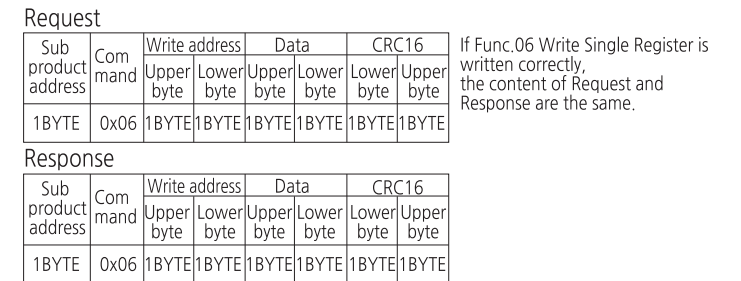
<Func 0x03 : Read Holding Registers>

You can read the settings menu.



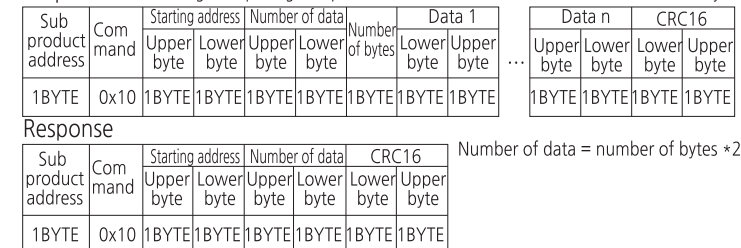
<Func 0x06 : Write Single Registers>

The setting menu can be changed by one item.



<Func 0x10 : Write Multiple Registers>

The setting menu can be changed by several items. Request When writing multiple registers, none of them will be written if there is an error in any data.



MAP Func 0x03, 0x06, 0x10

NO	Address	Description	Range	Unit	Factory setpoint
400001	0000	CC-Link	1~254, Common link : 255		1
400002	0001	Communication speed	1200/2400/4800/9600/19200	BPS	9600

※ The specification of aforementioned product is subject to change without prior notice to improve its performance.
When handling the product, be sure to follow the content specified in precautions.

■ Address: (Road name) 56 Banryongsandan 1-ro, Jangan-eup, Gijang-gun, Busan (Lot No.) 901-1, Banryong-ri, Jangan-eup, Gijang-gun, Busan (Postal code 46034)

- Customer service :070-7815-8266 • Customer service :051-819-0425 ~ 0427
- FAX: 051-819-4562 • Homepage: www.conotec.co.kr
- E-mail : conotec@conotec.co.kr
- SNS: Search Conotec on Facebook, Instagram, Twitter, Youtube

◆ Installation precautions

- To avoid the risk of electric shock, the equipment must be connected to a protective earth and to power supply.
- Do not block the ventilator.

◆ Handling precautions

- ※ This instrument is suitable for the following environments
- Environment: Temperature: 0 ~ 60°C ■ Ambient humidity: 80%Rh or less
- Contamination level 2 ■ Altitude less than 2000m
- Installation category II
- Avoid equipment placement that makes it difficult to control the power cord.
- If the equipment is used in a manner not specified by the equipment manufacturer may impair protection provided by the equipment.

■ Items and development of main products

- | | |
|-----------------------------------|--|
| • Temperature/humidity controller | • Unit cooler controller |
| • Counter & Timer Controller | • Heat pump controller |
| • Current & Voltage Panel Meter | • Chiller controller |
| • Temperature/humidity indicator | • Constant temperature and humidity controller |
| • Oven controller | • SMS text alarm |
| • CO2 controller | • Temperature/humidity transmitter |
| • PID controller | • Smartphone App & Monitoring System |