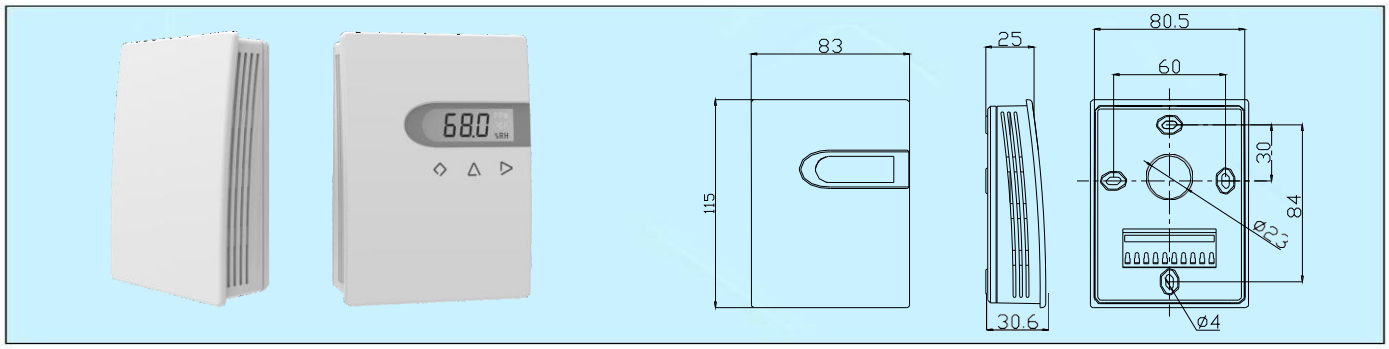
H1N Wall Mount Temperature & Humidity Transmitter



Applications & Features

- H1N is designed for indoor air temperature and humidity measurement
- High performance digital sensors & circuits, ensure accurate measurement & temp. compensation
- Good long term stability and reliability,
- 100% changeable sensors without re-calibration
- Fast response
- State of art housing design, easy installation & wiring
- All electrical terminals are on the inside bottom, avoid any possible destroy to PCB when wiring
- Digital technology applied, multiple output optional, over voltage and reverse polarity protection, high reliability and anti-interference capability
- LCD display temperature and humidity alternatively
- LCD & function keys can set parameters and calibrate output, so the product can be a stand alone controller

Specifications

Relative Humidity
Sensor: Digital polymer
Range: 0~100%RH
Output:4~20mA(2 wires),
0~10VDC(3 wires),
RS485/Modbus
Accuracy: 2, 3%RH (25°C, 20~80%RH)
Hysteresis: <±1%RH
Response time: <10s (25°C, in slow air)
Drift: <±0.5%RH/year
Temperature
Sensor: Digital, RTD or thermistor, see models
Range: 0~50°C
Output:4~20mA(2wires),0~10VDC(3wires),
RS485/Modbus, or RTD/thermistor
Accuracy: transmitter: <±0.4°C(0.3°C)@5~60°C
RTD or thermistor: typical 0.2~0.4°C@ 25°C, see models
Power: Current: 18.5~35VDC (R_{load}=500Ω)
8.5~35VDC (R_{load}=0Ω)
Voltage: 16~28VAC/ 16~35VDC
Output Load: ≤500Ω (current), ≥2KΩ (voltage)
Relay output: 2×SPST, 3A/30VDC,3A/250VAC
Display and Keys: 4 digits LCD, with unit indication, backlight (4-20mA N/A), 3 touch keys, see details on LCD & Keys operation
Display Resolution: 0.1°C, 0.1%RH
Temp. Limit: -20~70°C, 5~95%RH (Non condensing)
Storage Temperature: -20~80°C
Housing: ABS+PC
Protection: IP30
Approval: CE

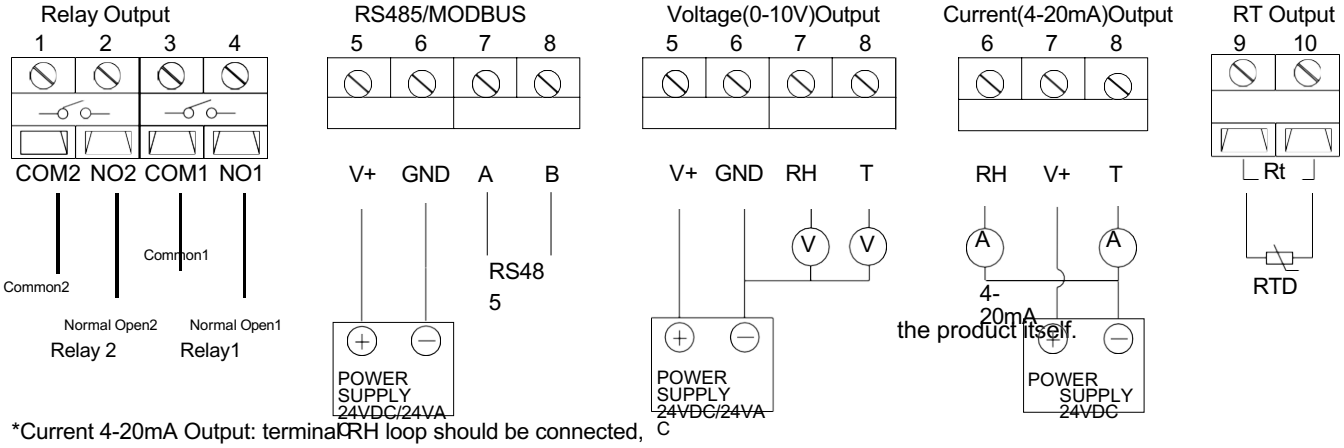
Models

Model	H1N							Wall mount Temp./RH transmitter
RH Accuracy		2 3						±2%RH(0.3°C) ±3%RH(0.4°C)
RH Output (0-100%RH)			1 2 8					0-10VDC(3 wires) 4-20mA(2 wires) RS485/Modbus
Temp. Output				0 1 2 3 4 5 6 7 8 9 A				No 0-10VDC(3 wires) 4-20mA(2 wires) PT1000, ±0.2°C@25°C PT100, ±0.2°C@25°C NTC20K, ±0.4°C@25°C Ni 1000, ±0.4°C@25°C NTC10K-II, 0.4°C@25°C RS485/Modbus NTC10K-III, 0.4°C@25°C NTC10K-A, 0.4°C@25°C
Temp. Range					0 1 7			No 0-50°C others
Relay						0 1		No 2 × SPST(4-20mA N/A)
LCD& Keys							0 1 2	No LCD LCD & Keys

*1. H1N series current products are powered on RH circuit, so the RH circuit must be powered. Otherwise it could not work.
*2. Only when the temperature output is 1 or 2, the temperature range 1-7 is applicable. Otherwise, always use 0 as temperature range selection.
*3. See resistance table on page 1 of this catalog.

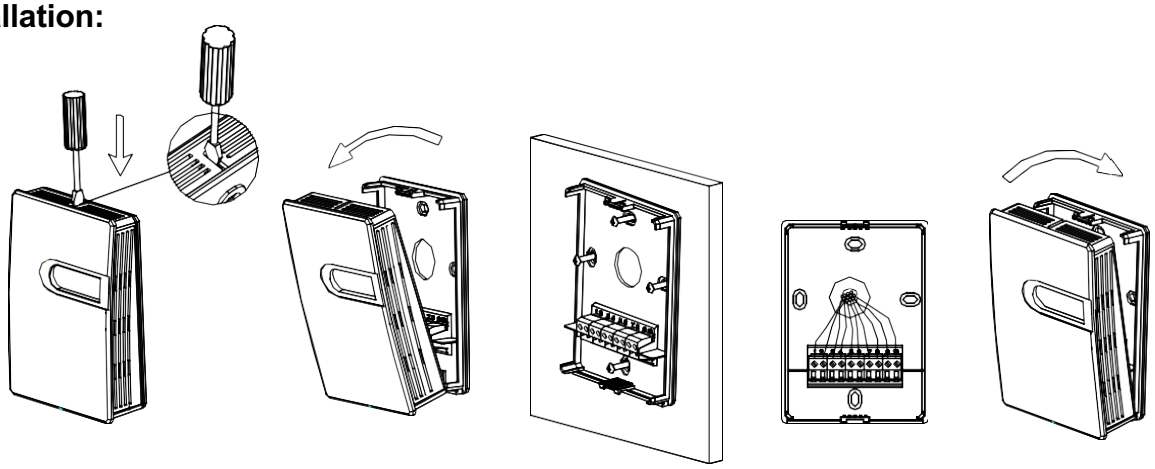
Connection:

Different models have different electrical terminals. Please wire specific model according to the wiring diagram inside the front cover.



*Current 4-20mA Output: terminal RH loop should be connected, otherwise the transmitter can not work.

Installation:



- It should be installed vertically on the wall. The installation site should be far away from heater, cooler, fan, humidifier, dehumidifier, and other heat/cool/humidity sources.
- Use a screwdriver, insert into the snap at the upper side of the housing, and push down a little, then open the front cover.
- Feed the cable into the housing before installing the base on the wall according to the diagram.
- Finish electrical connection according to the wiring diagram.
- Restore the front cover, and finish the installation.

Attention:

It should be power OFF during installing and wiring. When using 24VAC, it is strongly recommended to power the unit with independent transformer. If sharing a 24VAC transformer with other equipments such as controllers, transmitters or actuators, please make sure the terminals 24V and GND are connected correctly. Otherwise, it will perhaps reduce serious damages.

Warranty：

- It has limited warranty for eighteen (18) months after the production date.
- It does not extend to any unit that has been subjected to misuse or accident.
- It is, in any event, strictly limited to the replacement or repair of the product itself.