

# Duct & Wall Mount Temp/ Humidity Transmitter

## HIT SERIES

# M A N U A L

## Features

- Compact & slim size
- High accuracy & stability
- Current or voltage output
- Wide range of temp/ hum measurement 40.0~80.0 °C  
0~ 100% rh



For your safety, please read the following before using

## Caution For Your Safety

※ Please keep "Caution for safety" to avoid accidents or damages as using it correctly.

※ The meaning of 'Warning' and 'Caution' is as follow;

⚠ **Warning** In case a serious injury or dead may be occurred.

⚠ **Caution** In case a little injury or damage of this unit may be occurred.

※ The meaning of the mark on the product and manual is as follow;  
is a caution mark for danger in special condition.

## Warning

1. Please use it with double safety devices when it is used at the equipment which may cause damages to human life or assets ( Ex: Nuclear power control, Medical equipment, Vehicle, Train, Air plane, Combustion apparatus, Entertainment or safety device etc.)  
It may cause fire, human injury and damage.
2. Do not connect, check or repair the product when power is ON.  
It may give an electric shock.
3. Do not disassemble and modify this unit. When it requires, please contact us.  
It may give an electric shock or fire.
4. Please check the polarity before connecting wires.  
It may cause a fire.

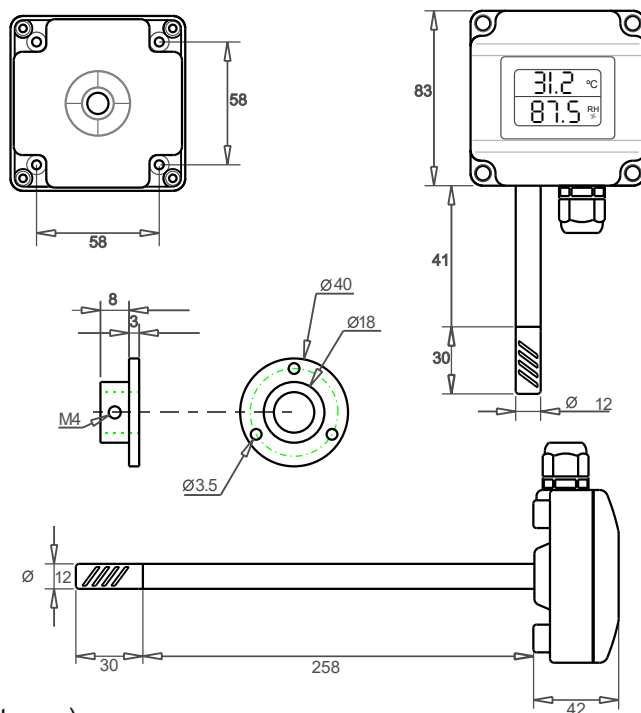
## Caution

1. This unit shall not be used outdoors.  
It may shorten the life, cycle of the product.
2. Do not touch the temperature/ humidity sensor by hands .
3. This unit must be mounted on panel.  
It may cause a malfunction.
4. For cleaning the unit, do not use water or an oil-based detergent but a dry towel.  
It may cause an electric shock or life.
5. Do not use this unit at place where there are flammable or explosive gas, humidity, direct ray the sun, radiant heat, vibration, impact etc.  
It may cause explosion or fire.
6. Do not inflow dust or wire dregs into inside of this unit.  
It may cause fire or mechanical problem.
7. Do not unfasten the detecting head except for Vesta engineers.  
It may cause a breakdown of sensor.

## Ordering information

HIT - D D 77 C

|          |    |                        |
|----------|----|------------------------|
| Output   | C  | Current 4~20 mA        |
|          | V  | Voltage 0~10 Vdc       |
|          | T  | Rs485                  |
| Type     | 77 | Humidity & temperature |
|          | 71 | Humidity only          |
|          | 70 | Temperature only       |
| Display  | D  | Display Type           |
|          |    | Built in Type          |
| Mounting | D  | Duct mount             |
|          | W  | Wall mount             |
|          | R  | Room (for indoor)      |



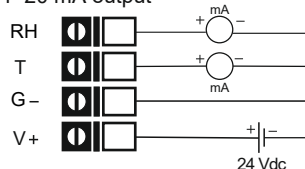
( Unit: mm )

## Specifications

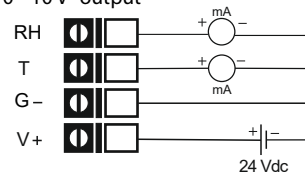
|                   |          |                                                                 |
|-------------------|----------|-----------------------------------------------------------------|
| Humidity          | Range    | 0~99.9 %rh                                                      |
|                   | Accuracy | RH: ± 3%RH<br>(including non-linear, repeatability, hysteresis) |
|                   | Output   | 4~20 mA , 0~10 Vdc Rs485 Output                                 |
| Temperature       | Range    | -20~80 °C , 0~50 °C , -40~60 °C                                 |
|                   | Accuracy | T: ± 0.3 °C<br>(Full rang in average)                           |
|                   | Output   | 4~20 mA 0~10 Vdc Rs485 Output                                   |
| Sensor protection |          | Stainless steel + mesh filter                                   |
| Power supply      |          | 15~36 Vdc (4~20 mA, 0~10 Vdc) Output                            |
| Size (WxHxD mm)   |          | 83x83x42                                                        |
| Cable gland       |          | M 16x1.5                                                        |
| Housing           |          | ABS, Water proof                                                |
| Weight            |          | 134.5 gr                                                        |

## Terminal Connection

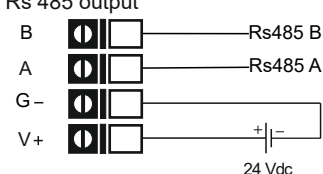
### ● 4~20 mA output



### ● 0 ~10 V output

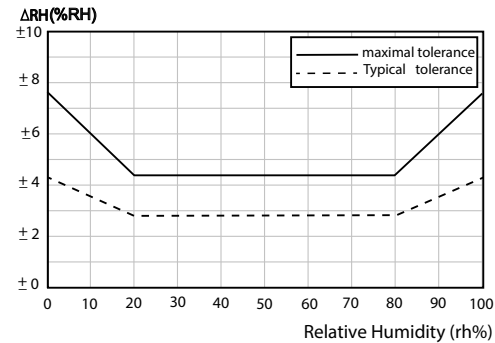
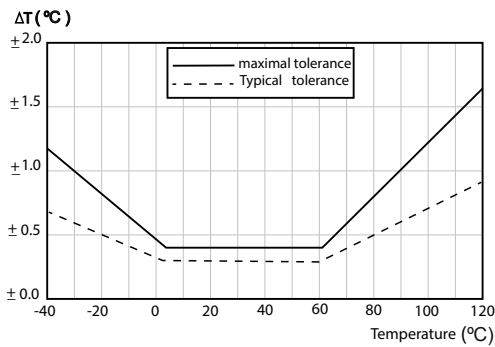


### ● Rs 485 output

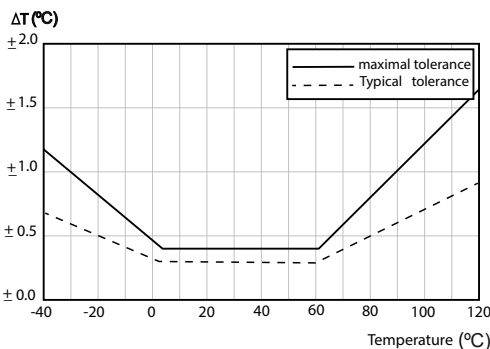
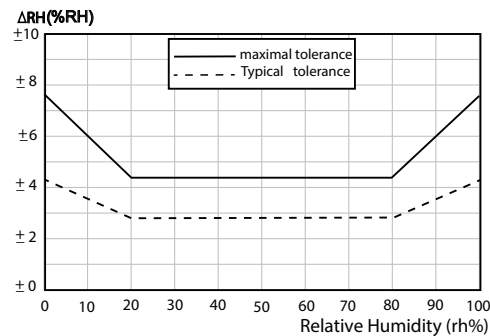


## Accuracy

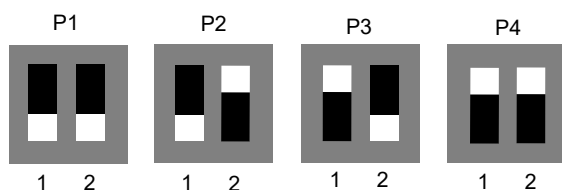
Analog output :4~20 mA , 0~10Vdc



RS485 output



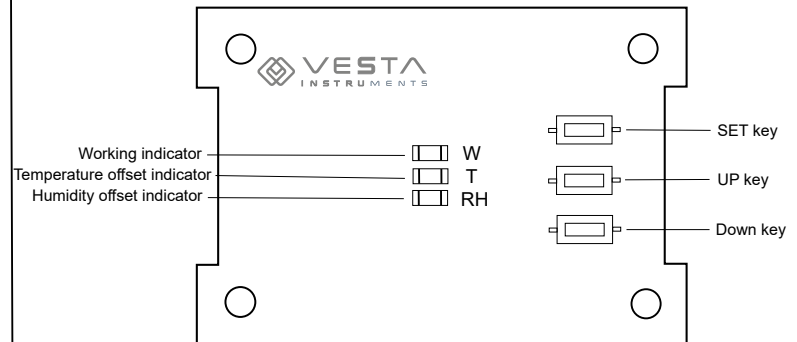
## Temperature Range Setting (4~20mA , 0~10 VDC)



| P1         | P2           | P3           | P4       |
|------------|--------------|--------------|----------|
| 0 to 50 °C | -20 to 80 °C | -40 to 60 °C | Reserved |

## Offset Function

Because of the different calibrator or by the effect of the temperature shift/ year the transmitter will be offset for more accuracy further, which can be achieved for offset setting by these keys on PCB board.



Please see the operation of Temperature, Humidity Offset setting as follows:

### 1. Temperature and Humidity, offset value Confirmation

E.g The measured value: T:26.0 °C, H:75.0%, The value by standard calibrator: T:25.5°C, H:72.0, so Temperature offset value =+0.5, humidity offset value=-3

### 2. Temperature offset value setting (max. offset value=+10 °C

Please power on the transmitter, please press SET key one time, the temperature indicator lights up, currently, press UP key to add offset value by +0.1, pressure DW key to reduce offset value by -0.1. when press UP or DW key one time, the temperature or Humidity relative offset indicator will be flashing one time. E.g Temperature offset value=+0.5, please press UP key for 5 time continuously, at the time, the Temperature offset indicator.

### 3. Humidity Offset Value Setting

After finishing the temperature no required offset, please press SET key again, the humidity indicator lights up, at this time, press UP or DW key to set humidity offset value by +,-1 one time, E.g Humidity, offset value=-3, please press DW key for 3 time continuously with the humidity offset indicator flashing 3 times.

### 4. Finish Offset Setting

After finishing humidity offset, please press SET key to exit offset setting.

**Note: Please set offset value correctly in order to offset value correctly.**

## Warranty Conditions

### 1. Warranty : one year since ex- work

During warranty, if the ordered goods after delivery are damaged or with function problems caused only by itself quality problem, please send the goods back to madincos for free repair and maintenance.

### 2. If the goods are over-warranty time, extra cost will be required accordingly.

### 3. Please see below conditions which is not belong to free repair during warranty:

- The transmitter is damaged by force majeure
- The transmitter is damaged by natural disasters such as lightning
- The transmitter is damaged by unstable power supply
- The user disassembles the meter without approval by us.
- The transmitter is damaged by user's improper operation or improper storage and protection.
- The transmitter hardware is burned; its circuit board burned; connection interface is fractured or broken; obvious physical difference with the original meter.