

## TP-21D/TP-22 D Differential Pressure & Temperature Sensor

### 1. Description & Application :

The pressure probe consists of silicon pressure sensor and NTC temperature sensor with integrated circuit to provide a RS232 communication output.

Feature	Application
Wide humidity operation range	Server room monitor.
Easy operation	Indoor building automation, HVAC system.
Small and economical	
Long-term stability	

### 2. Electrical characteristics :

#### 2.1 Sensing element

Pressure :	Silicon Sensor
Temperature :	NTC TTC3A10F34H1EY

2.2 Supply Voltage (Vin) : 5VDC( 3.5~12VDC)

2.3 Current Consumption : 5mA max :(3mA avg.)

2.4 Operating Range Indoor only

Temperature : 0 to 55°C

Pressure : -500Pa ~ +500Pa

2.5 Storage:

Temperature : -20 to 70°C

Pressure : 95%RH or less

2.6 Pressure range :

TP-21D -500Pa ~ + 500Pa

TP-22D -1500Pa ~ +1500Pa

2.7 Accuracy

Temperature : +- 1 degree C (at 0~40°C)

Pressure : +- 1% (at 25 +- 10°C)

2.8 Data output 3 wire RS232

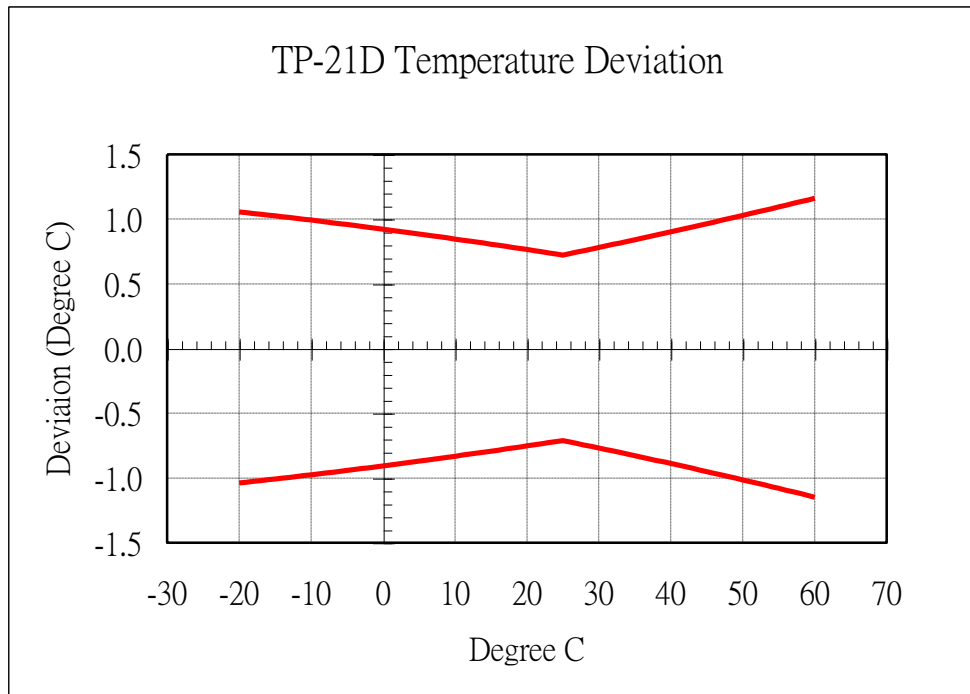
2.9 Certification

FCC: FCC Part 15 Subpart B (10-1-10 Edition)

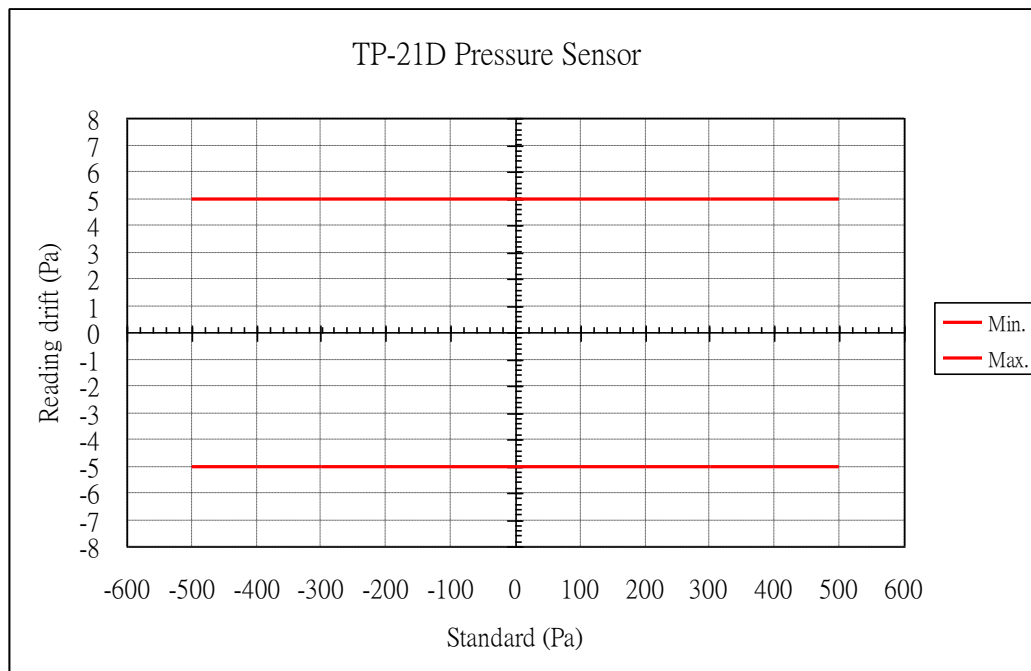
CE: EMC Directive 2004/108/EC for CE Marking

ESD 4KV(contact)/8KV(Air)

## 2.9 TP-21D Temperature characteristics

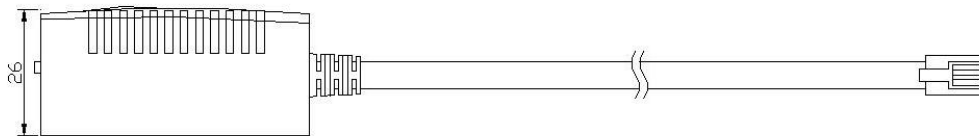
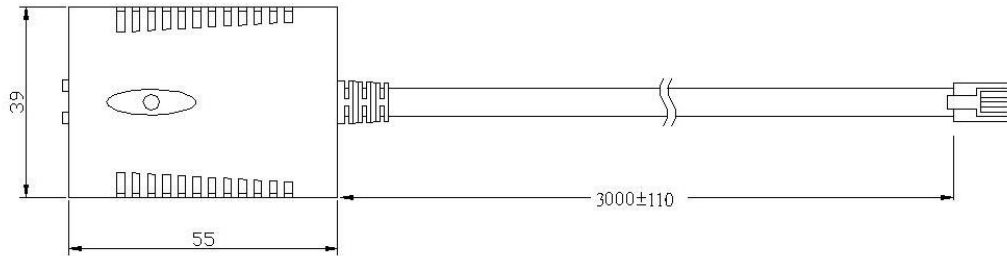


## 2.10 TP-21D Pressure characteristics

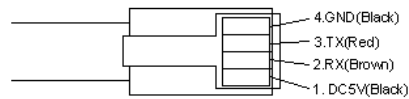


### 3. Configuration & Dimensions (Units :mm)

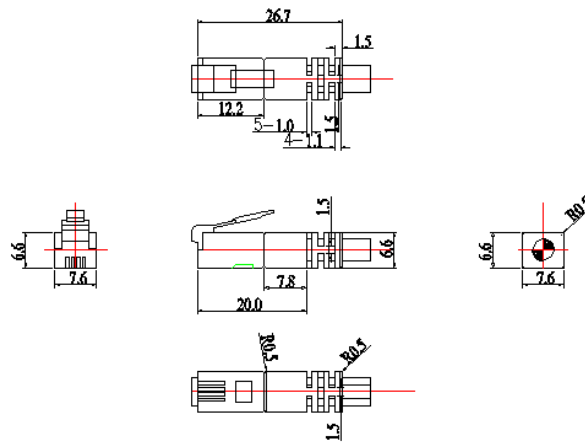
#### 3.1 Model No. TP-21D Drawing



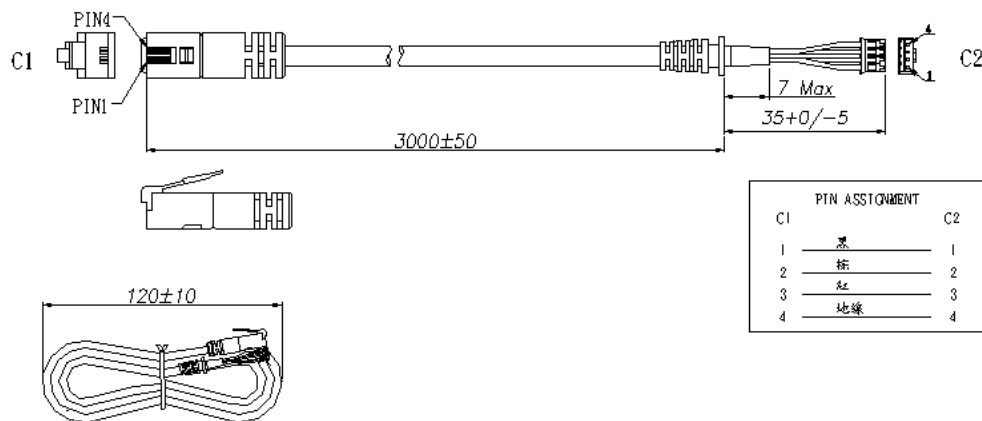
#### 3.2 RJ11 Terminal Connection



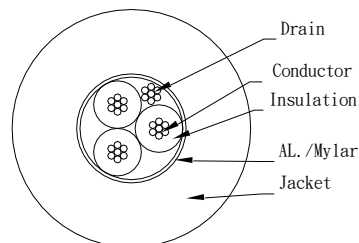
### 3.3 RJ11 connector



### 3.4 RJ11 cable



### 3.5 cable conductor



## 4. Test condition

Item	Condition	
Temperature	25 °C	+/-0.6 °C
Pressure	250 Pa	+/- 2.5 Pa
Pressure	-250 Pa	+/- 2.5 Pa

## 5. Caution remarks on operation :

5.1 To avoid direct application of over DC 12 voltage on probe.

5.2 To protect sensor avoid over pressure..

5.3 To avoid and operation of Pressure sensors in the following environmental ambient.

5.3.1 Salt

5.3.2 Inorganic gas                      Sulfide dioxide, Chlorine, Ammonium, etc.

5.3.3 Organic gas                        Alcoholic, Glycols, Aldehydes, etc.

5.4 Recommendable storage condition

Temperature range                      10~40°C

Humidity Range                         90%RH or Less.

5.5 Do not store humidity sensors long period of time in 70°C ambient, due to some occasion of degradation on sensor housing case.

Remark : Specification changes should notify the customer and need to agree.

## 6. Standard Warranty

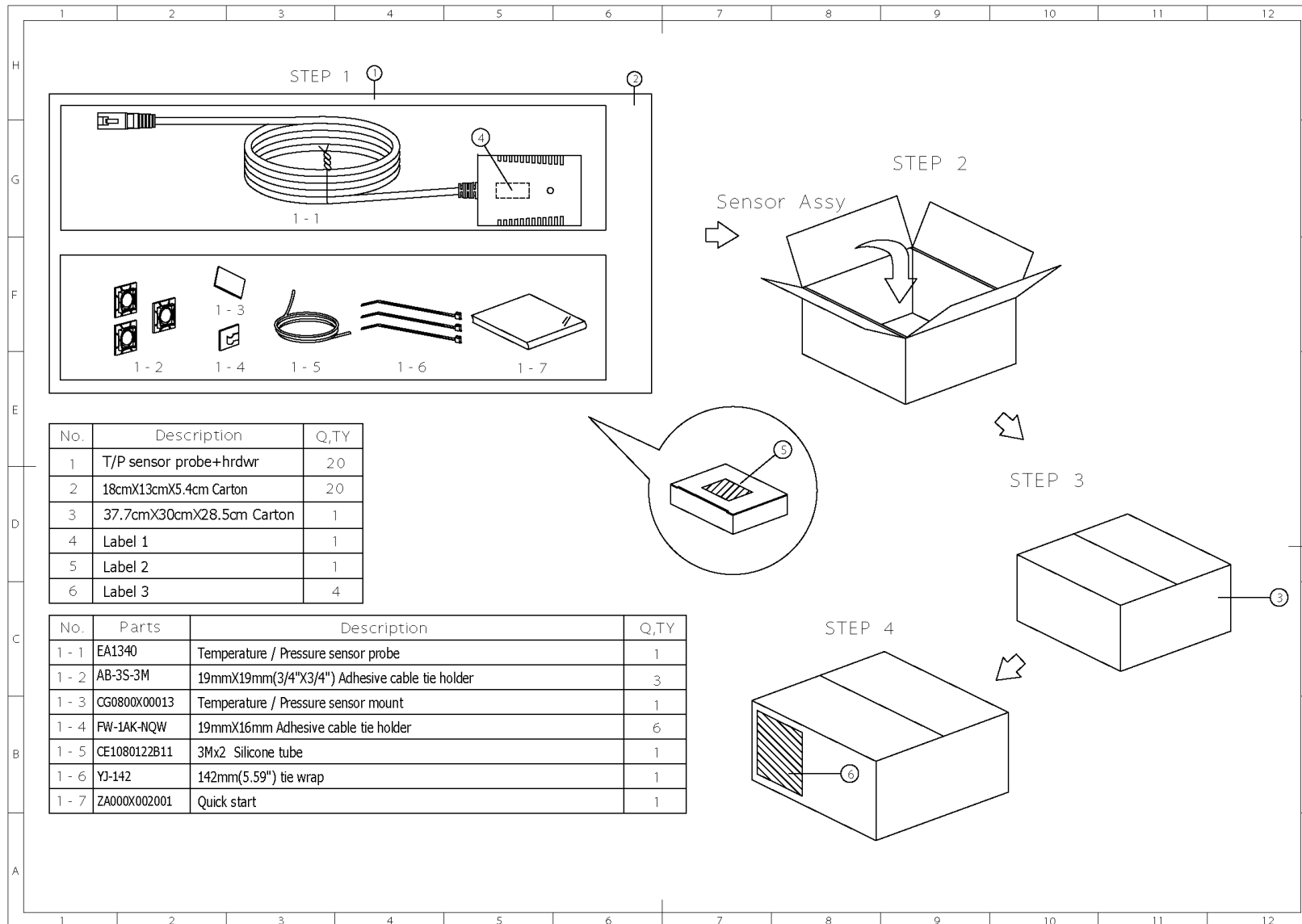
One year repair or replace.

## 7. RoHS Compliant Declaration

We hereby declare the components delivered to your company are compliant with RoHS Directive 2002/95/E.

## 8. Packing :

There are 20 pieces of box to be packed in one carton.



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