

# H7080B TEMPERATURE/ HUMIDITY DUCT SENSOR



- 4 ~20mA/ 0~10VDC or resistance output for temperature
- 4 ~20mA/ 0~10VDC output for humidity
- Duct mounted
- Excellent linearity
- Good long term stability
- High reliability
- Wide sensing range
- Easy installation

## APPLICATION

H7080B series duct mounting humidity and temperature sensors are designed for environmental monitoring and control applications in industrial, commercial and general building.

Accuracy: These sensors can be used for discharge, or return air control.

RH per year

### Technical Specification

Long Term Stability

Relative Humidity Measurement Range:

0~100%RH

NTC10K, NTC20K, Pt1000

Output:

20mA or 0~10VDC

0~50 (resistance output)

Temperature

-10~40 or 0~70 (transducer)

Temperature Sensor:

2%, 3%, 5%RH (25°C , 20~80%RH)

Measurement Range:

5%, 9%RH (25°C , 0%~20% and 80%~100%)

Output: 4~20mA or 0~10VDC

NTC10K, NTC20K, Pt1000

Accuracy: ±0.2K at 25°C for NTC10K sensor  
 ±0.2K at 25°C for NTC20K sensor  
 ±0.3K at 0°C for Pt1000 sensor  
 ±0.5°C (-10~40°C or 0~70°C) for transducer

**Temperature**

Power Supply:	24 VAC ±15% /24 VDC ±10%
Current Output Load:	500 Ohms Max
Voltage Output Load:	10K Ohms Min
Current Consumption:	DC 70mA Max, AC 190mA Max
Working Temperature:	-30 °C ~+70 °C
Transport and Storage	
Temperature:	-40°C ~+70 °C
Housing Material:	Plastic (PC-ABS) Flame retardant acc. with UL94-V0
Protection Standard:	IP 54
Protection Standard:	EN 61000-6-1 EN 61000-6-3 EN 61000-3-2 EN 61000-3-3



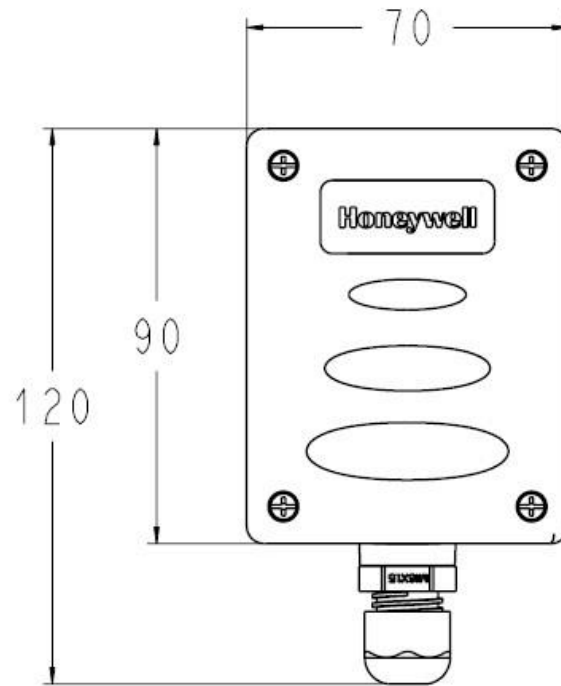
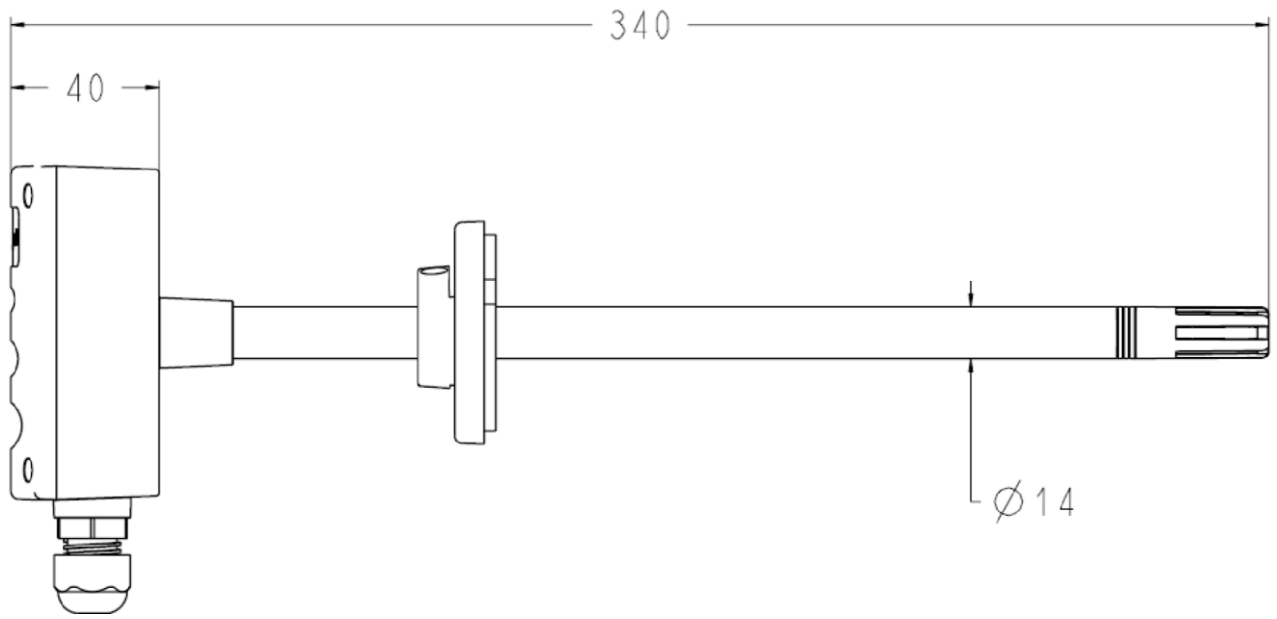
**Models**

OS Number	Humidity Output	Humidity Accuracy	Temperature Output Type	Temperature Range
C7080A3240	NA	NA	4~20mA/0-10V	-10°C~40°C
C7080A3270	NA	NA	4~20mA/0-10V	0°C~70°C
H7080B3102	4~20mA/0-10V	±2%	Pt1000	0°C~50°C
H7080B3242	4~20mA/0-10V	±2%	4~20mA/0-10V	-10°C~40°C
H7080B3272	4~20mA/0-10V	±2%	4~20mA/0-10V	0°C~70°C
H7080B2103	4~20mA/0-10V	±3%	NTC20K	0°C~50°C
H7080B1103	4~20mA/0-10V	±3%	NTC20K	0°C~50°C
H7080B3103	4~20mA/0-10V	±3%	Pt1000	0°C~50°C
H7080B3243	4~20mA/0-10V	±3%	4~20mA/0-10V	-10°C~40°C
H7080B3273	4~20mA/0-10V	±3%	4~20mA/0-10V	0°C~70°C
H7080B2105	4~20mA/0-10V	±5%	NTC20K	0°C~50°C
H7080B1105	4~20mA/0-10V	±5%	NTC20K	0°C~50°C
H7080B3105	4~20mA/0-10V	±5%	Pt1000	0°C~50°C

**Wiring**

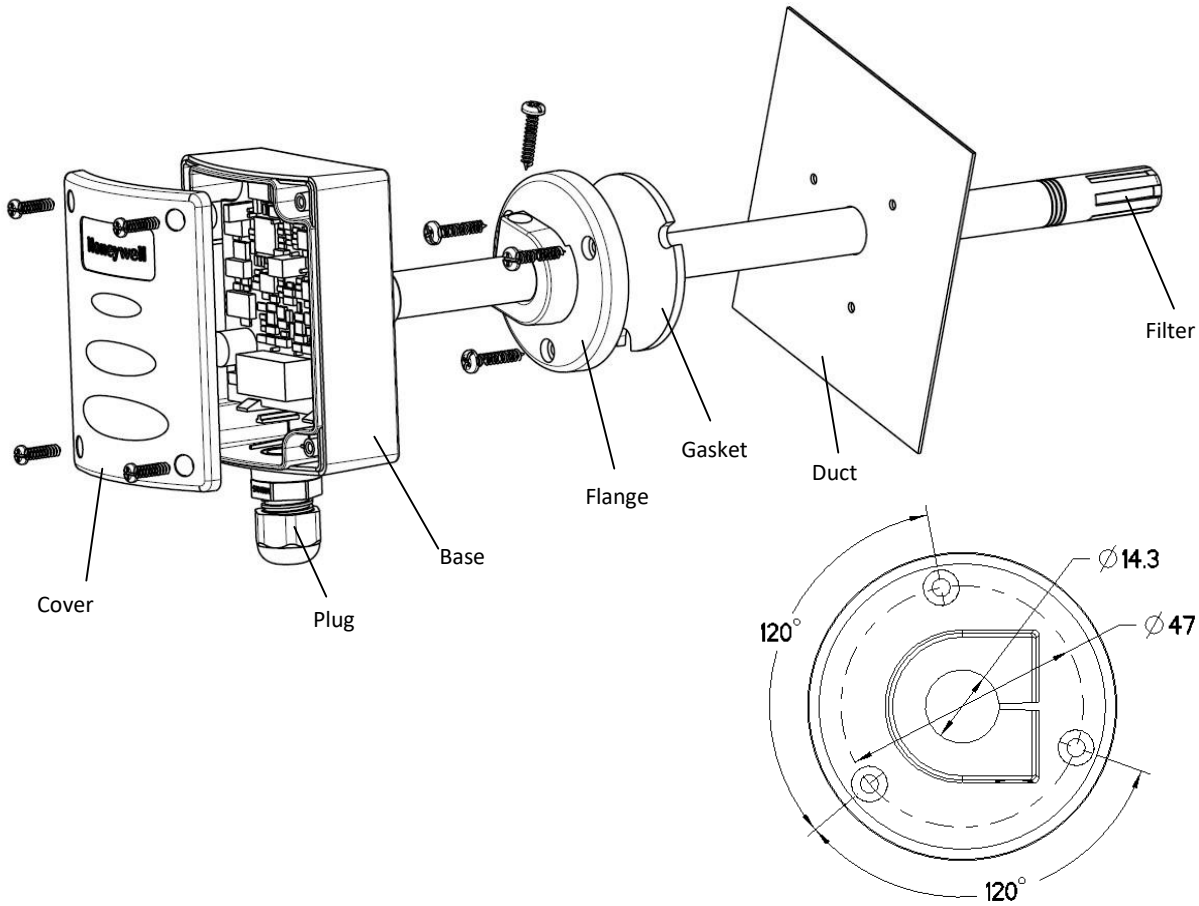
- For temperature output model:
- For temperature sensor & humidity output:
- For temperature & humidity output model:





# Installation

Dimension in mm



## Installation Guidelines

- Drilling a mounting hole on the duct near measuring point.
- Use enclosed screws to install the flange with gasket on the duct. Insert the probe pipe into flange and duct.
- Fix the probe pipe on the flange by enclosed screw. (Note: Plug face to the bottom direction)
- Lead wire from DDC or PLC panel through plug. Using screw driver to connect each wire to the terminals of the transducer module according to field wiring diagram.
- Tighten the waterproof plug around the wires.
- Put front cover back and tighten front cover by screws.

## ATTENTION:

Absolutely avoid extreme mechanical and unspecified strain.

**When using a 24 VAC transformer, use an isolated Transformer (Class II). If sharing the transformer with your controller, valve, actuator, or any other device, be sure to connect all of the devices with the proper polarity, since most controllers are earth grounded. Failure to do so may result in damage to the transducer, your controller, or any other devices that are attached due to a ground loop problem.**

The product is equipped with stainless steel filter: since the sensor is an ESD-sensitive device, you should avoid touching the sensor cap during operation. For maintenance purposes it is recommended, that you observe the valid ESD-safety precautions!

Please don't use in corrosive environment.

For more information, <https://honeywellbuildings.in>

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