

H7050B

Duct Humidity & Temperature Transducer

PRODUCT DATA



Application

H7050B series duct mounting humidity and temperature transducers are designed for environmental monitoring and control applications in industrial, commercial and general building.

These sensors can be used

- for discharge, outside or return air control.
- as high limit sensor e.g. for steam humidification.

Features

- 4~20mA, 0~10VDC output for temperature and humidity or resistance temperature sensor directly
- Duct mounted
- Excellent linearity
- Good long term Stability
- High reliability
- Wide sensing range
- Dirt, dust & oil does not effect sensor
- Easy installation

Specifications

Relative Humidity

Measurement Range:	0~100%RH
Output:	4~20mA or 0~10VDC
Accuracy:	3%RH(20°C, 20~80%RH)
Total Accuracy:	5%RH
Long Term Stability:	± 1%RH per year

Temperature

Temp Sensor:	NTC20k, Pt1000, Ni1000
Measurement Range:	0~50°C 0~100°C -10~60°C
Output:	4~20mA or NTC20k, Pt1000, Ni1000
Accuracy:	±0.2K at 25°C for NTC20k sensor ±0.3K at 25°C for Pt1000 sensor ±0.6K at 25°C for Ni1000 sensor ±0.5°C (0~40°C) With transducer
Long Term Stability:	±0.25°C per year

Power Supply:	24 VAC/VDC ±10%
Current Output Load:	500 Ohm Max
Current consumption:	40mA Max
Working temperature:	-30°C ~+70°C

Transport and Storage Temperature :	-30°C ~+85°C
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Housing Material:	Plastic (ABS) Flame retarded acc. to UL94-V1
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Protection Standard:	IP54
EMC Conformity:	IEC61000-4-2 IEC61000-4-4 IEC61000-4-5 CISPR14-2:1997

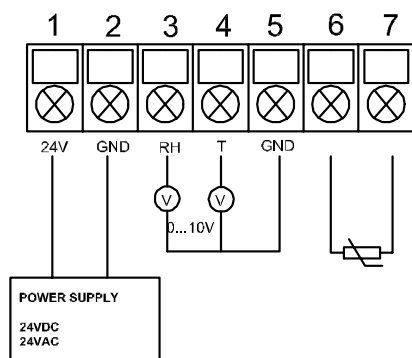


Models

OS Number	Humidity Output	Humidity Accuracy	Temperature Output Type	Temperature Range	Description
H7050B1000	Voltage	±3%	NA	NA	humidity transducer
H7050B1018	Voltage	±3%	NTC20k	NA	humidity transducer & NTC20k temperature sensor
H7050B1026	Voltage	±3%	Pt1000	NA	humidity transducer & Pt1000 temperature sensor
H7050B1034	Voltage	±3%	Ni1000	NA	humidity transducer & Ni1000 temperature sensor
H7050B1091	Current	±3%	Current	0~50°C	temperature & humidity transducer
H7050B1109	Current	±3%	Current	0~100°C	temperature & humidity transducer
H7050B1117	Current	±3%	Current	-10~60°C	temperature & humidity transducer

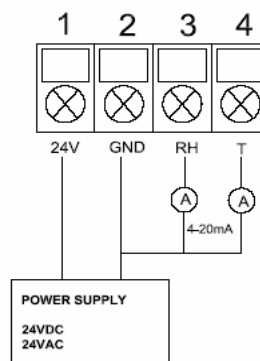
Wiring

- For voltage output model:



H7050B1000
H7050B1018
H7050B1026
H7050B1034

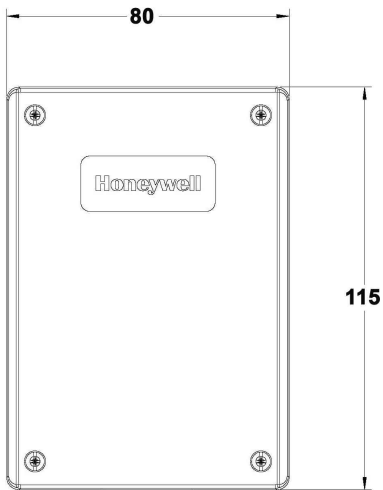
- For current output models:



H7050B1091
H7050B1109
H7050B1117

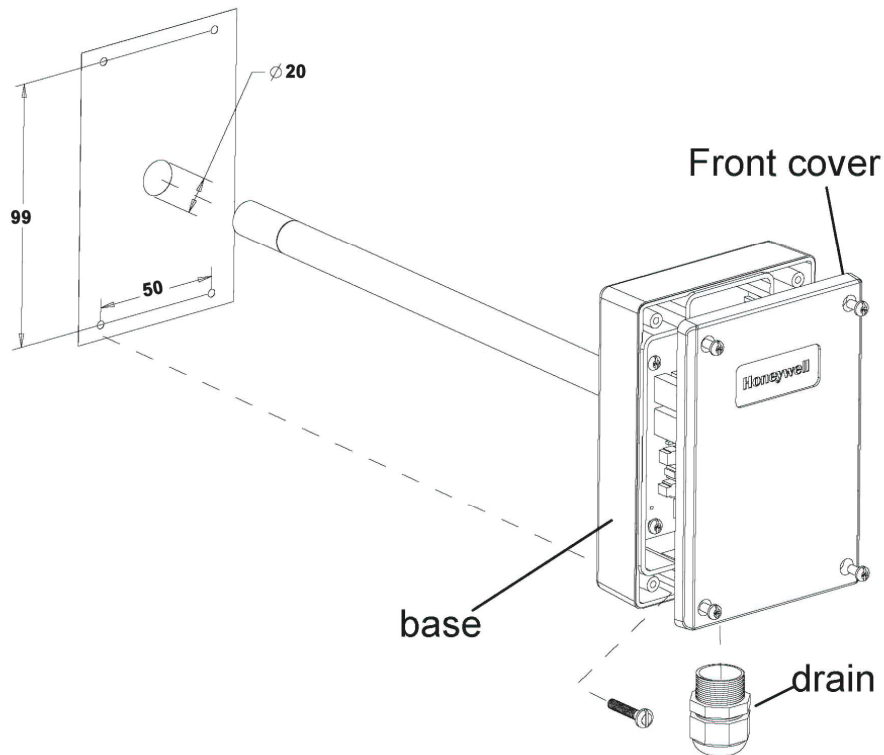
Dimension

Dimension in mm



Installation

Dimension in mm



INSTALLATION:

- Drilling a mounting hole with diameter 13mm on the duct near measuring point. Insert the probe pipe into duct.
- Unscrew & open the front cover of the product.
- Use enclosed screws to install the wiring box on the duct.
- Lead wire from DDC or PLC panel through drain. Using screw driver to connect each wire to the terminals of the transducer module according to field wiring diagram.
- Put front cover back and tighten front cover by screw.

ATTENTION:

Absolutely avoid extreme mechanical and unspecified strain.

When using a 24 VAC transformer, use an isolated transformer. 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 sinter-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!

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