

H7012A Humidity and H7012B Humidity and Temperature Room Sensors

SPECIFICATION DATA



FEATURES

- Capacitance type sensing element.
- Wide sensing range.
- Temperature indication sensor H7012B only.

GENERAL

The H7012A Room Humidity Sensor is a wall mounting capacitance type relative humidity (rh) sensor. The H7012B Room Humidity and Temperature Sensor adds either a PT1000 or BALCO 500 temperature sensor to the H7012A. These sensors are for use with Excel DDC, Excel Plus, Excel MacroCel (humidity only), or Excel 5000.



SPECIFICATIONS

Models:

✓	Model	Humidity Sensing Range	Temperature Sensor	Temperature Sensing Range F (C)
☐	H7012A	5 to 95% rh	—	—
☐	H7012B		PT1000	32 to 122°F (0 to 50)
☐			Balco 500	

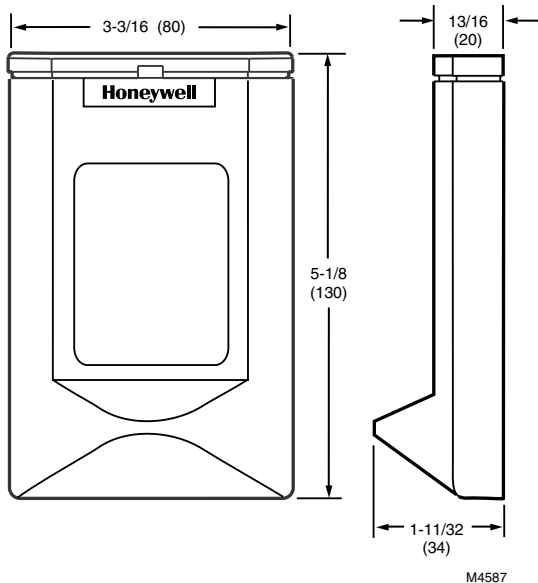
Electrical Requirements:

24V +20%, -30%, 50/60 Hz; or 24 to 40V dc
20 mA at 24V

Ambient Limits:

Operating:
32 to 122°F (0 to 50°C)
5 to 95% rh (non-condensing)
Storage:
-13 to 158°F (-25 to 70°C)
0 to 100% rh (non-condensing)

Dimensions:



H7012 Approximate Dimensions in in. (mm).

Housing:

ABS Plastic, flame retardant per UL 94-V0

Temperature Sensor:

Nominal Resistance
Pt 1000: 1000Ω @ 32°F (0°C)
BALCO: 500Ω @ 74°F (23.3°C)
Sensitivity:
Pt 1000: 2.14Ω/°F (3.85Ω/°K)
BALCO: 1.1Ω/°F (2Ω/°K)
Response time:
τ_{0.5} = 2.5 min

Relative Humidity Sensor:

Output Ranges: 0 to 1V dc, 0 to 10V dc
Output Impedance:
1V range: 183Ω
10V range: 274Ω
Sensitivity
1V range: 10 mV/% rh
10V range: 100 mV/% rh
Response time:
τ_{0.5} = 35s

Accessories:

14507393-001: Wall Mount Plate, adapts sensor to 2 in. x 4 in. electrical junction box. Package of 10 plates.

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