

# Space Humidity and Temperature Sensor

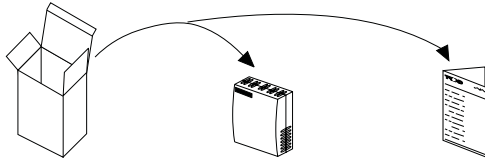
**Important: Retain these instructions**



## Contents

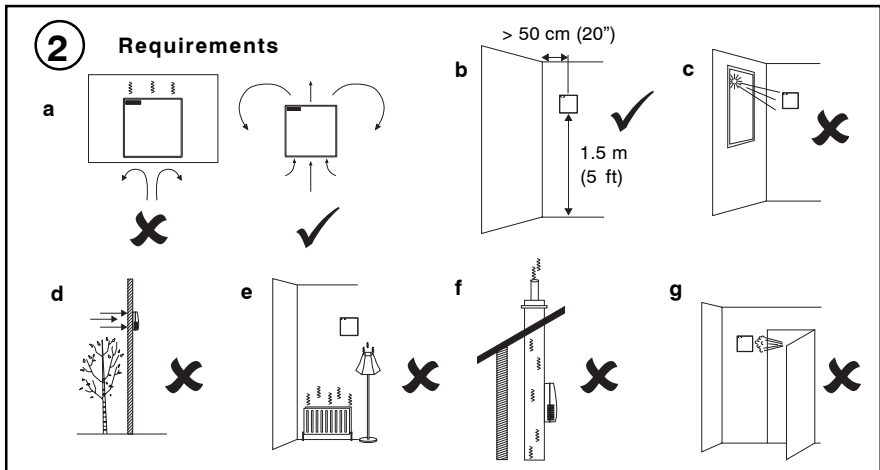
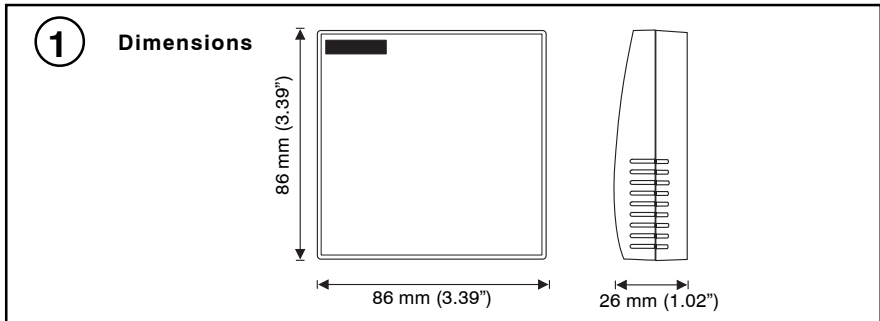
1	Unpacking .....	1	Installation .....	1
		3	Maintenance .....	4
		4	Disposal .....	4

## 1 Unpacking



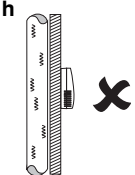
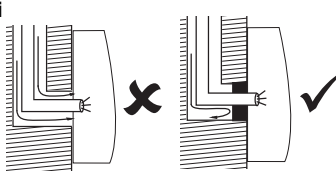
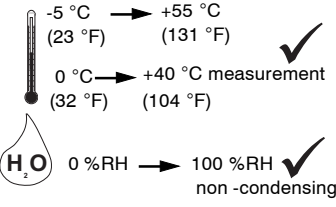
HT/S Installation  
Instructions  
TG200990


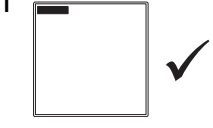
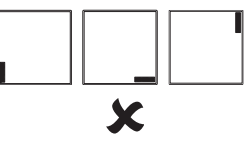
## 2 Installation



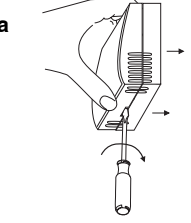
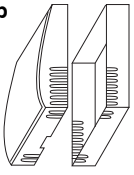
2 Installation (continued)

**2 Requirements (continued)**

**h**  **i**  **j** 

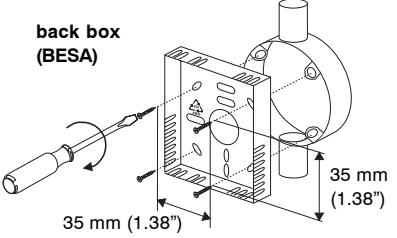
**k**  **l**  

**3 Remove backplate**

**a**  **b** 

**4 Mount backplate**

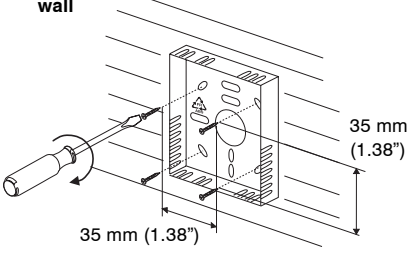
**back box (BESA)**



35 mm (1.38")

35 mm (1.38")

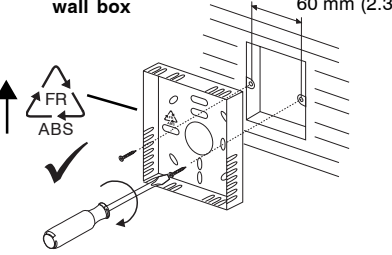
**wall**



35 mm (1.38")

35 mm (1.38")

**wall box**

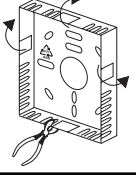


60 mm (2.36")

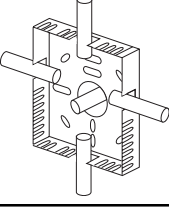
FR  
ABS

**5 Remove cutout(s)**

as required



**6 Route cables**



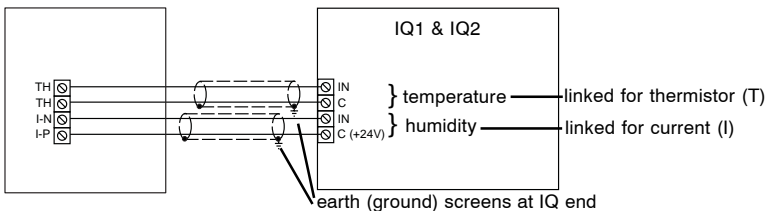
2 Installation (continued)

7

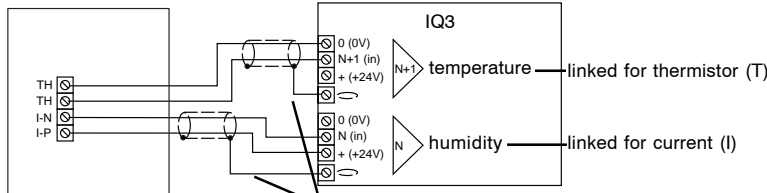
Wire to Controller

2 analogue input channels

HT/S

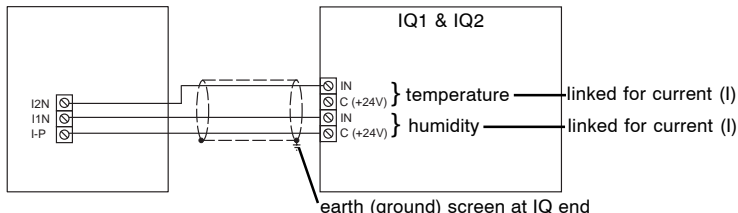


earth (ground) screens at IQ end



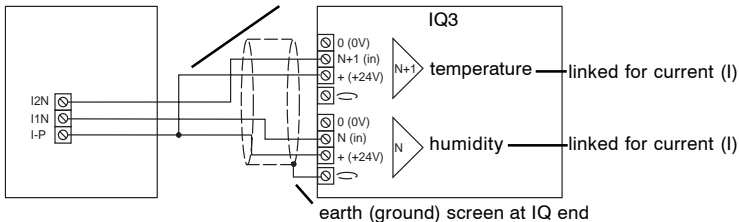
earth (ground) screens at IQ end

HT/S/2%



earth (ground) screen at IQ end

Note that when connecting to IQ3, in order to provide sufficient supply current to the sensor, the sensor I-P terminal must be connected to **both** channels' 24 V terminals.



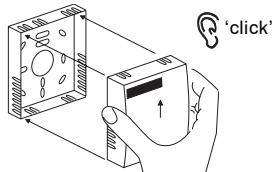
earth (ground) screen at IQ end

Note that in order to maintain the HT/S/2% temperature sensor accuracy, the temperature sensor should only be used if the humidity sensor is also used.

8

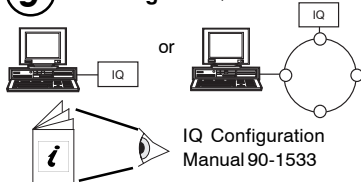
Assemble unit

backplate



9

Configure IQ



2 Installation (continued)

**10 Set up IQ Sensor types**

It is recommended to use SET (software tool) for the setting of sensor type modules. For all IQ2 series controllers with firmware version 2.1 or greater, or IQ3 series controllers, the following SET Unique Sensor References should be used:

- Humidity (HT/S, HT/S/2%): **Humidity I**
- Temperature (HT/S): **Thermistor HTST DT (°C)**
- Temperature (HT/S/2%): **Thermistor HTST DT F (°F)**
- PRT I 0+40 (°C)**
- PRT I +32+104 F (°F)**

Alternatively set scaling mode to 5 (characterise), and enter scaling manually as defined in the appropriate tables below. Note that for IQ3, scaling mode and exponent do not need to be set up. For all other IQ controllers see Sensor Scaling Reference Card TB100521A.

**Temperature**

HT/S (0 to +40 °C, 32 to 104 °F)

Units		°C	°F
Y	Input type 1 (thermistor volts)		
E	Exponent	3	
U	Upper	50	122
L	Lower	-5	23
P	Points	6	
x	lx	Ox (°C)	Ox (°F)
1	2,641	50	122
2	3,47	40	104
3	4,46	30	86
4	6,663	10	50
5	7,668	0	32
6	8,102	-5	23

**Temperature**

HT/S/2% (0 to +40 °C, 32 to 104 °F)

Units		°C	°F
Y	Input type 2 (current)		
*E	Exponent	3	
U	Upper	40	104
L	Lower	0	32
P	Points	2	
x	lx	Ox	
1	4	0	32
2	20	40	104

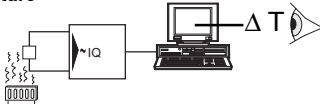
**Humidity**

HT/S and HT/S/2% (0 to 100 %RH)

Units		°C	°F
Y	Input type 2 (curr mA)		
E	Exponent	3	
U	Upper	100	
L	Lower	0	
P	Points	2	
x	lx	Ox	
1	4	0	
2	20	100	

**11 Test system**

**Temperature**



**Humidity**



3 Maintenance

Over time, the sensing element may become covered in dust. The dust can be removed using compressed air. Under no circumstances should water or cleansing agents be used on the sensing elements.

4 Disposal

**WEEE Directive :**

At the end of their useful life the packaging and product should be disposed of by a suitable recycling centre.  
Do not dispose of with normal household waste. Do not burn.

Please send any comments about this or any other Trend technical publication to [techpubs@trendcontrols.com](mailto:techpubs@trendcontrols.com)

Manufactured for and on behalf of the Environmental and Combustion Controls Division of Honeywell Technologies Sàrl, Ecublens, Route du Bois 37, Switzerland by its Authorized Representative, Trend Control Systems Limited.

©Trend Control Systems Limited 2007. Trend Control Systems Limited reserves the right to revise this publication from time to time and make changes to the content hereof without obligation to notify any person of such revisions or changes.

**Trend Control Systems Limited**

P.O. Box 34, Horsham, West Sussex, RH12 2YF, UK. Tel: +44 (0)1403 21888 Fax: +44 (0)1403 241608 [www.trend-controls.com](http://www.trend-controls.com)

**Trend Control Systems USA**

6670 185th Avenue NE, Redmond, Washington 98052, USA. Tel: (425)897-3900, Fax: (425)869-8445 [www.trend-controls.com](http://www.trend-controls.com)