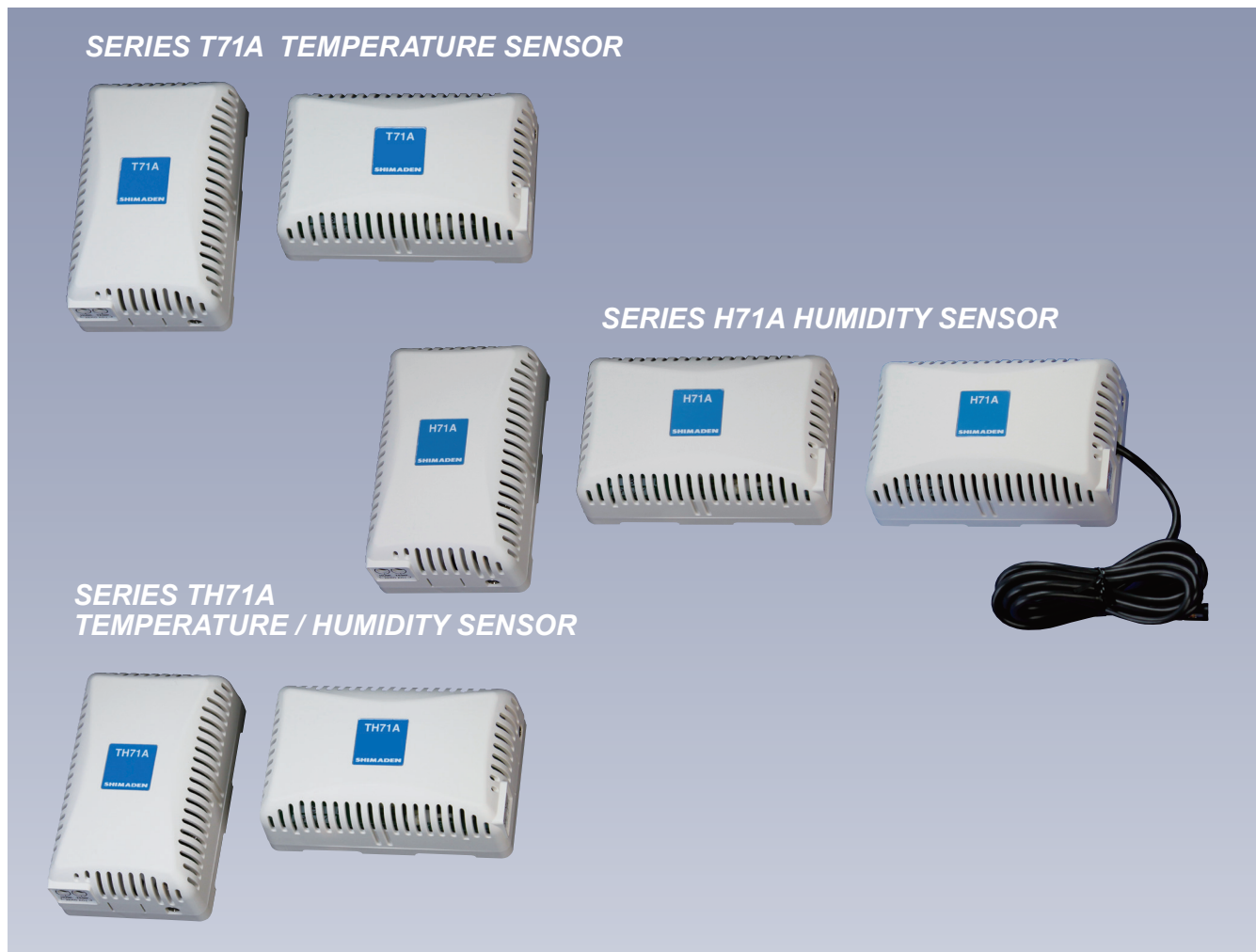
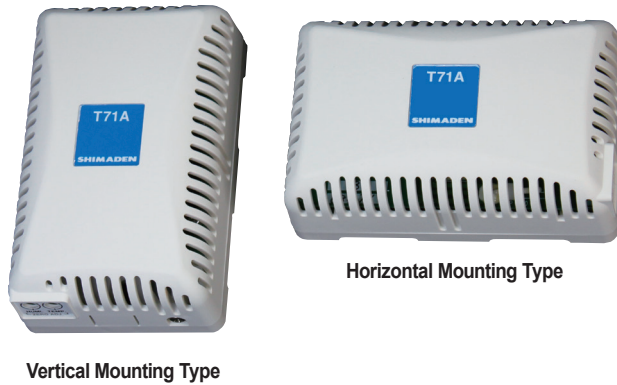


°C	Series T71A/H71A/TH71A <i>SHIMADEN Wall mounting type sensor (Temperature/Humidity)</i>
%RH	
SHIMADEN	



COMMON SPECIFICATIONS

- Material (Case and Base): Resin based plastic**
- External Dimensions: 70 (H) x 110 (W) x 42 (D) mm**
- Mounting Method: Wall mounting**
- Mounting Measurement: 86.5mm 2-φ4
(Mounting screw space)**



Vertical Mounting Type

Horizontal Mounting Type

SPECIFICATIONS

Sensing Element:	R.T.D., Pt100 / JPt100
Applicable Temperature Range:	-10 - 100°C
Applicable Humidity Range:	95%RH (No dew condensation)
Sensing Response:	Approx. 3 min./90% Response (0.5m sec. air current)
Weight:	Approx. 100g

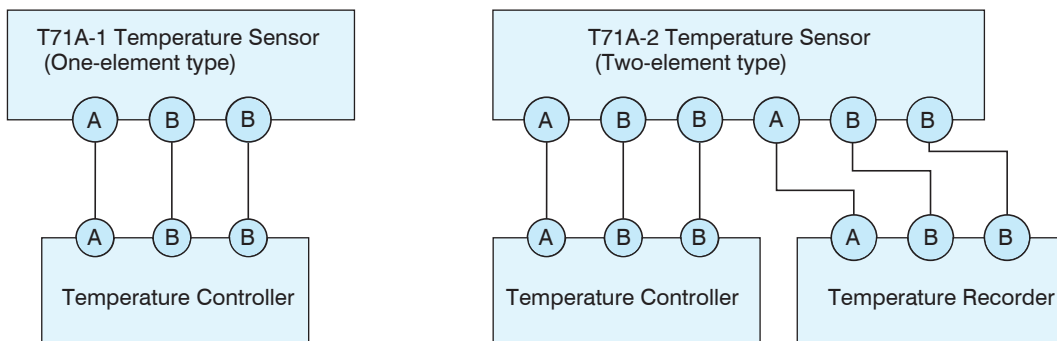
TH71A / T71A / H71A COMMON SPECIFICATIONS

Material (Case and Base):	Resin based plastic
External Dimensions:	70 (H) x 110 (W) x 42 (D) mm
Mounting Method:	Wall mounting
Mounting Measurement:	86.5mm 2-φ4 (Mounting screw space)

Note: Please do not use in the environment of the following gases.

1. Organic gas: Alcohols, Aldehyde, Ketone, Glycol, etc.
2. Inorganic gas: Sulfur dioxide, Hydrochloric Acid and Ammonia
3. Salty gas

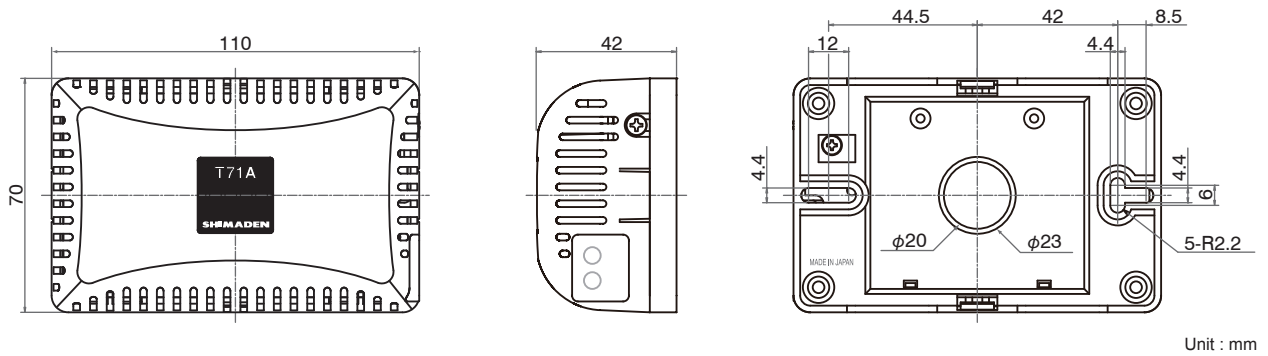
TERMINAL ARRANGEMENT & WIRING EXAMPLE FOR T71A



ORDERING INFORMATION

ITEMS	CODE	SPECIFICATIONS	
SERIES	T71A-	Temperature Sensor	
NUMBER OF ELEMENT	1	1 (One element)	
	2	2 (Two element)	
STANDARD	F	Pt100 /DIN (New JIS)	
	J	JPt100 / JIS	
CLASS	S	Class B, 2mA	
	Q	Class A, 2mA	
	X	Others (Please consult before ordering.)	
MOUNTING DIRECTIONS (FACEPLATE DIRECTION ONLY)	1	Horizontal Direction	
	2	Vertical Direction	
REMARKS	0	Without	
	9	With (Please consult before ordering)	

EXTERNAL DIMENSIONS & MOUNTING DRAWING



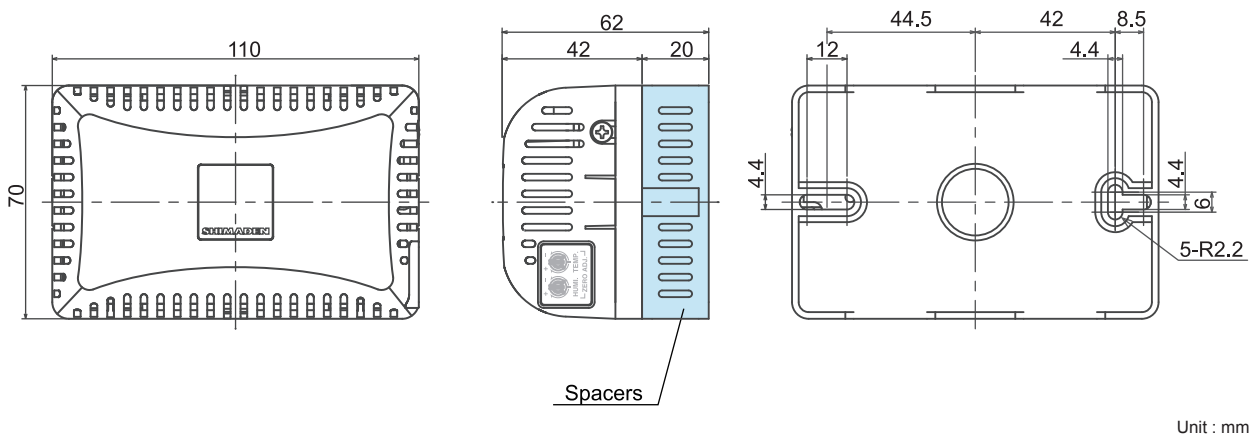
SPACERS (sold separately)

Product Outline

In the case the sensor is subject to the influence of humidity/temperature from the wall surface on which the sensor is mounted, the spacer lifts up the sensor by 20 mm from the wall surface, contributing to more precise measurements

CODE	QTS001
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External dimensions of the TH71A/T71A/H71A series sensors with spacers





Vertical Mounting Type



Horizontal Mounting Type



ProbeType
Horizontal Mounting
Only

SPECIFICATIONS

Humidity Sensing Element:	Macromolecule humidity sensor
Operating Ambient Temperature Range:	0 - 50°C
Humidity Measuring Range:	0 - 100% RH (practical range 20 - 90% RH)
Measuring Accuracy:	±3% RH (20-90% RH at 25°C)
Temperature Coefficient:	±0.1% RH/°C at 25°C
Sensing Response:	Within 1 min./90% response (2.5 sec. min. air current)
Humidity Output Signal	See ordering information.
Power Supply:	24V DC±10%
Current Consumption:	Approx. 3mA/Voltage output/Approx. 22mA/Current output
Stock Temperature:	- 10 - 60°C
Insulation Between Terminal and Case:	500V DC 20MΩ
Weight:	Approx. 150g

TH71A / T71A / H71A COMMON SPECIFICATIONS

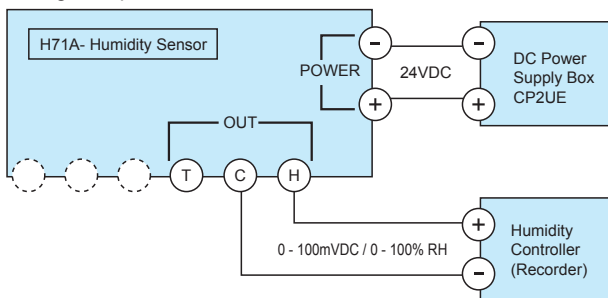
Material (Case and Base):	Resin based plastic
External Dimensions:	70 (H) x 110 (W) x 42 (D) mm
Mounting Method:	Wall mounting
Mounting Measurement:	86.5mm 2-φ4 (Mounting screw space)

Note: Please do not use in the environment of the following gases.

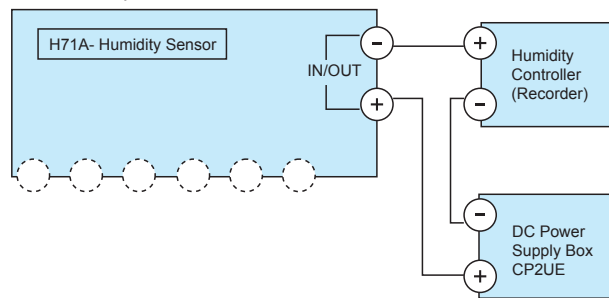
1. Organic gas: Alcohols, Aldehyde, Ketone, Glycol, etc.
2. Inorganic gas: Sulfur dioxide, Hydrochloric Acid and Ammonia
3. Salty gas

TERMINAL ARRANGEMENT & WIRING EXAMPLE FOR H71A

Output Signal
Voltage Output



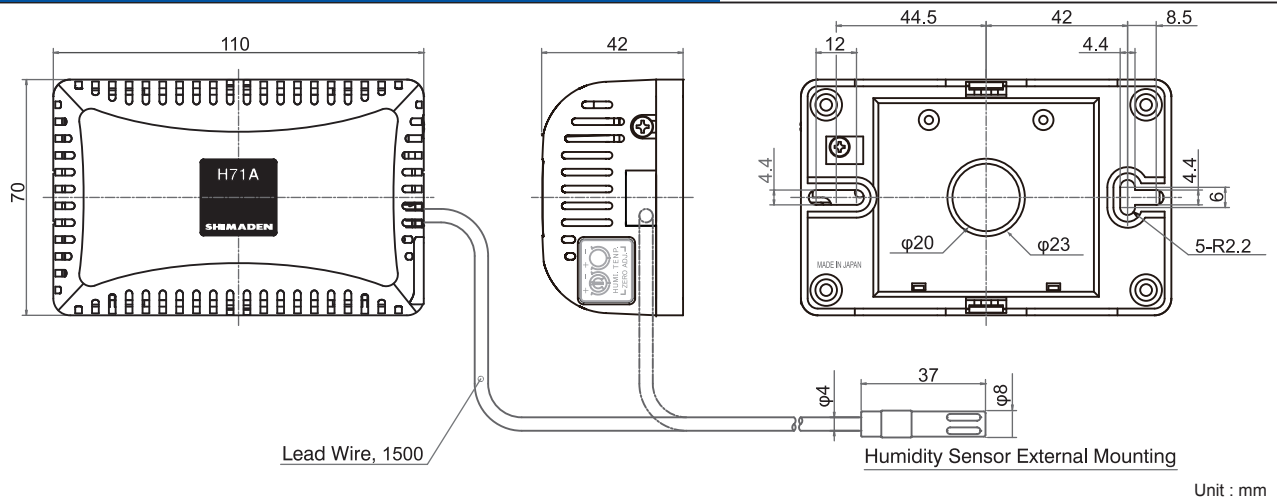
Output Signal
Current Output



ORDERING INFORMATION

ITEMS	CODE	SPECIFICATIONS	
SERIES	H71A-	Humidity Sensor	
TYPE OF HUMIDITY SENSOR	1	Self-contained type	
	2	Probe type (with lead 1.5m)	
HUMIDITY OUTPUT SIGNAL	1	0 - 10mV DC/0 - 100%RH Output Resistance: 10Ω (linearized output)	
	2	0 - 100mV DC/0 - 100%RH Output Resistance: 100Ω (linearized output)	
	3	0 - 1V DC/0 - 100%RH Output Resistance: 1kΩ (linearized output)	
	6	4 - 20mA DC/0 - 100%RH Load Resistance: 600Ω max.	
	9	Others (Please consult before ordering.)	
MOUNTING DIRECTIONS (FACEPLATE DIRECTION ONLY)	1	Horizontal Direction	
	2	Vertical Direction	
REMARKS	0	Without	
	9	With (Please consult before ordering)	

EXTERNAL DIMENSIONS & MOUNTING DRAWING



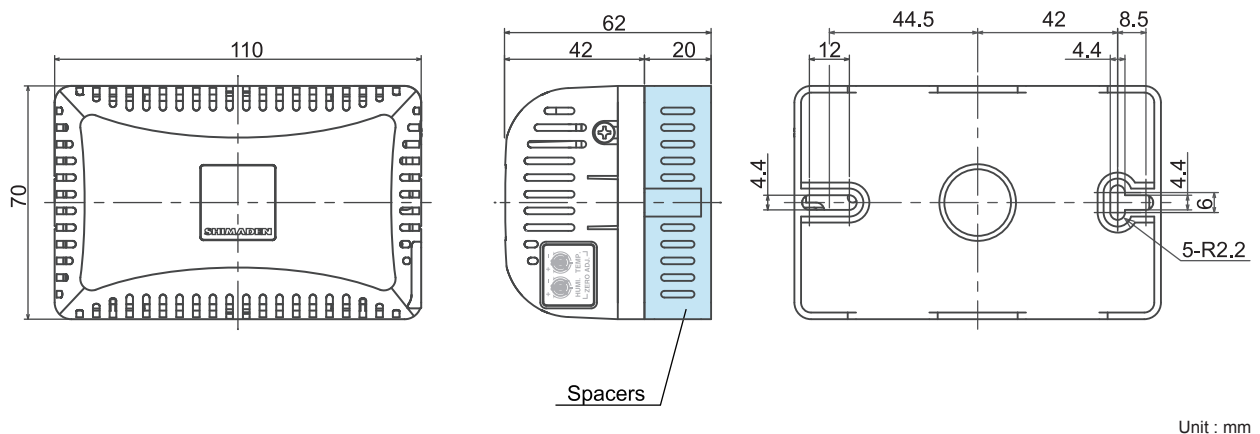
SPACERS (sold separately)

Product Outline

In the case the sensor is subject to the influence of humidity/temperature from the wall surface on which the sensor is mounted, the spacer lifts up the sensor by 20 mm from the wall surface, contributing to more precise measurements

CODE	QTS001
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External dimensions of the TH71A/T71A/H71A series sensors with spacers





Vertical Mounting Type



Horizontal Mounting Type

SPECIFICATIONS

Humidity Sensing Element:	Marcromolecule humidity sensor
Operating Ambient Temperature Range:	0 - 50°C
Humidity Measuring Range:	0 - 100% RH (practical range 20 - 90% RH)
Measuring Accuracy:	±3% RH (20-90% RH at 25°C)
Temperature Coefficient:	±0.1% RH/°C at 25°C
Sensing Response:	Within 1 min./90% response (2.5 sec. min. air current)
Humidity Output Signal	See ordering information.
Temperature Sensing Element:	R.T.D. Pt100/JPt100
Temperature Measuring Range:	0 - 50°C
Power Supply:	24V DC±10%
Current Consumption:	Approx. 3mA: when temperature = resistance output and humidity = voltage output
Approx.	6mA: when both temperature and humidity = voltage output
Approx.	22mA: when temperature = resistance output and humidity = current output
Approx.	25mA: when temperature = voltage output and humidity = voltage output
Stock Temperature:	- 10 - 60°C
Insulation Between Terminal and Case:	500V DC 20MΩ
Weight:	Approx. 150g

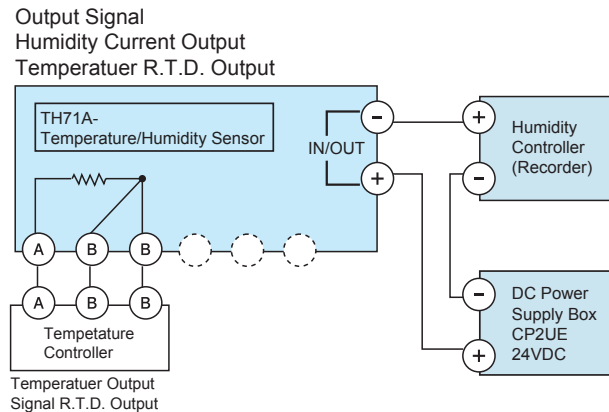
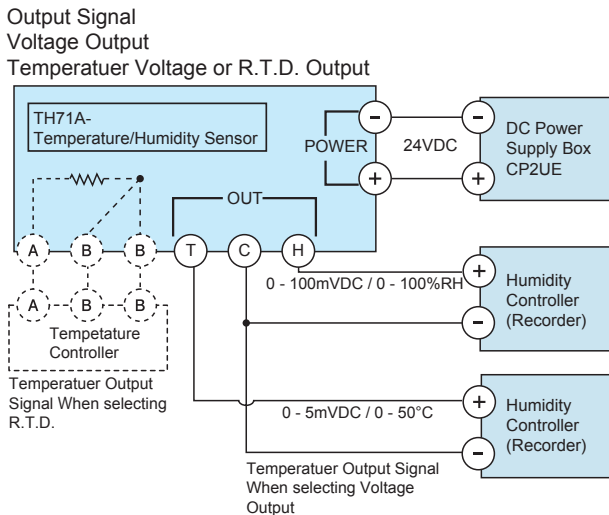
TH71A / T71A / H71A COMMON SPECIFICATIONS

Material (Case and Base):	Resin based plastic
External Dimensions:	70 (H) x 110 (W) x 42 (D) mm
Mounting Method:	Wall mounting
Mounting Measurement:	86.5mm 2-φ4 (Mounting screw space)

Note: Please do not use in the environment of the following gases.

1. Organic gas: Alcohols, Aldehyde, Ketone, Glycol, etc.
2. Inorganic gas: Sulfur dioxide, Hydrochloric Acid and Ammonia
3. Salty gas

TERMINAL ARRANGEMENT & WIRING EXAMPLE FOR TH71A

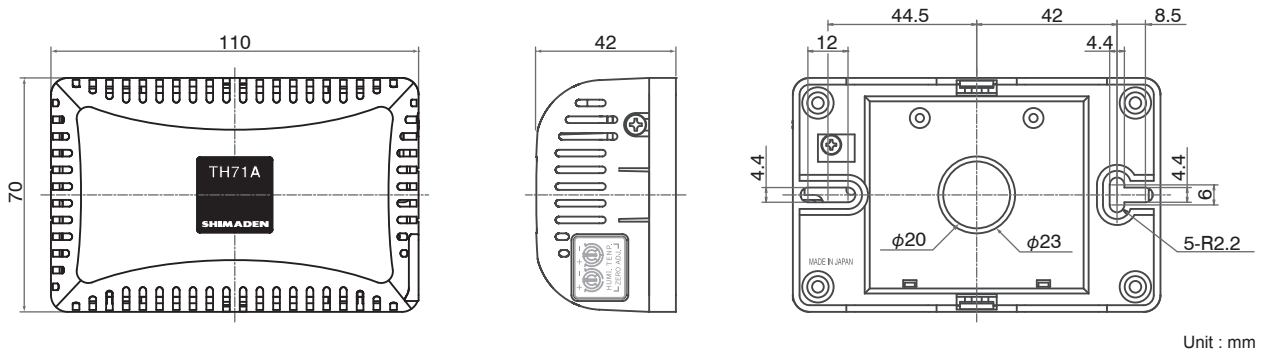


* Temperatuer output signal is either A, B, B, (R.T.D. output) or T, C (Voltage output)

ORDERING INFORMATION

ITEMS	CODE	SPECIFICATIONS	
SERIES	TH71A-	Temperature/Humidity Sensor (Sensing element self-contained type)	
HUMIDITY OUTPUT SIGNAL	1	0 - 10mV DC/0 - 100%RH Output Resistance: 10Ω (linearized output)	
	2	0 - 100mV DC/0 - 100%RH Output Resistance: 100Ω (linearized output)	
	3	0 - 1V DC/0 - 100%RH Output Resistance: 1kΩ (linearized output)	
	6	4 - 20mA DC/0 - 100%RH Load Resistance: 600Ω max. JPt100/JIS or Pt100/DIN must be selected for "Temperature Output Signal"	
TEMPERATURE OUTPUT SIGNAL	9	Others (Please consult before ordering)	
	1	0 - 5mV DC/0 - 50°C Output Resistance: 10Ω (linearized output)	
	2	0 - 50mV DC/0 - 50°C Output Resistance: 100Ω (linearized output)	
	3	0 - 0.5V DC/0 - 50°C Output Resistance: 1kΩ (linearized output)	
	7	JPt100/JIS (three lead wire output) Class B Rated current: 2mA	
MOUNTING DIRECTIONS (FACEPLATE DIRECTION ONLY)	8	Pt100/DIN (three lead wire output) Class B Rated current: 2mA	
	9	Others (Please consult before ordering.)	
	1	Horizontal Direction	
REMARKS	2	Vertical Direction	
	0	Without	
	9	With (Please consult before ordering.)	

EXTERNAL DIMENSIONS & MOUNTING DRAWING



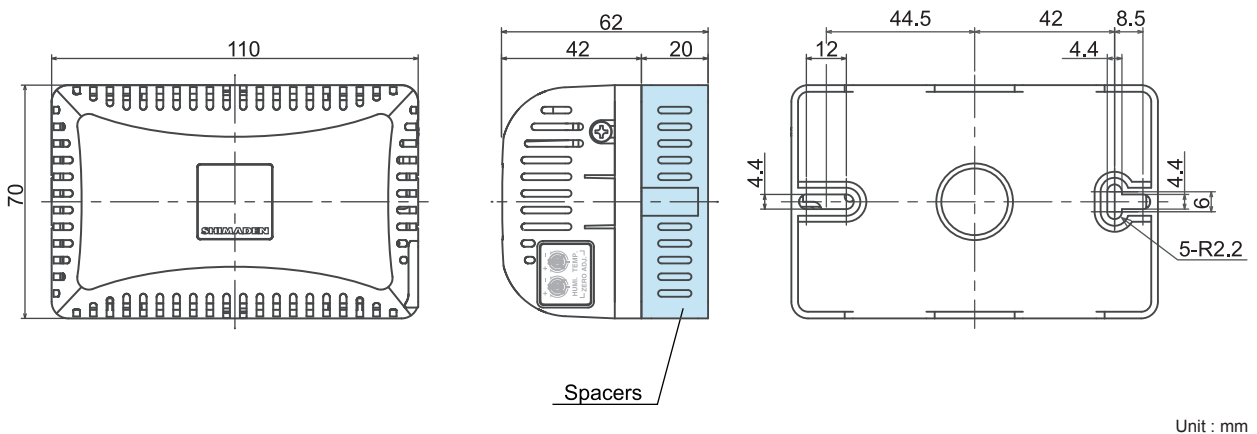
Spacers (sold separately)

Product Outline

In the case the sensor is subject to the influence of humidity/temperature from the wall surface on which the sensor is mounted, the spacer lifts up the sensor by 20 mm from the wall surface, contributing to more precise measurements

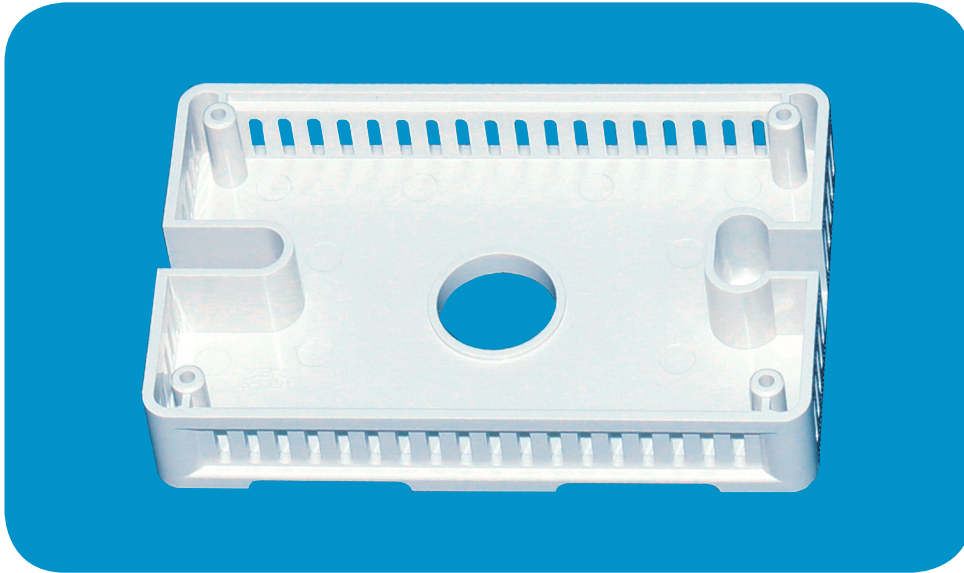
CODE	QTS001
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External dimensions of the TH71A/T71A/H71A series sensors with spacers



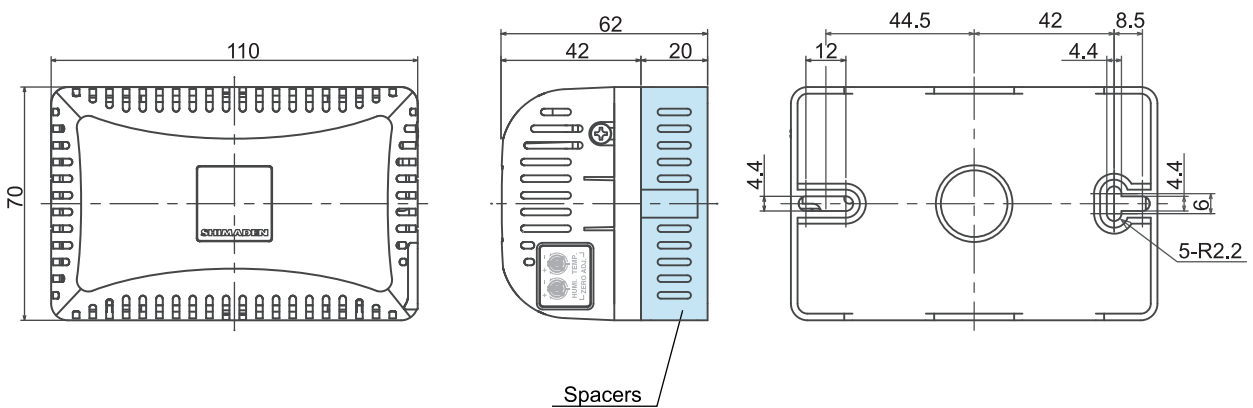
Product Outline

- Spacers for TH71A/T71A/H71A (sold separately)
- In the case the sensor is subject to the influence of humidity/temperature from the wall surface on which the sensor is mounted, the spacer lifts up the sensor by 20 mm from the wall surface, contributing to more precise measurements.



CODE : QTS001

External dimensions of the TH71A/T71A/H71A series sensors with spacers



Unit : mm





In the case of H71A, up to 13 units can be connected with one CP2UE.

In the case of TH71A, up to 6 units can be connected with one CP2UE.

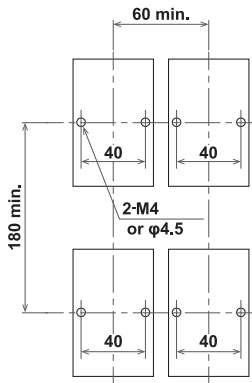
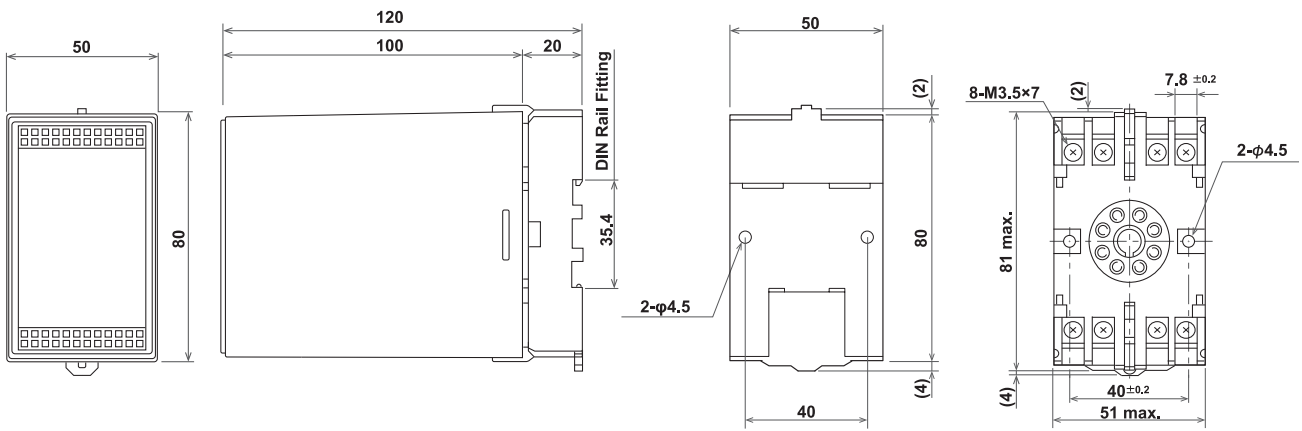
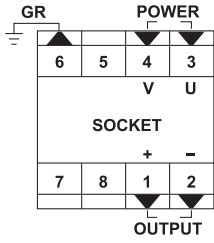
SPECIFICATIONS

Output Voltage / Ratings:	12V DC $\pm 4\%$ / 250mA DC
24V DC $\pm 4\%$ / 125mA DC Ripple Voltage:	12V DC /120mVp-p max.
Temperature Coefficient:	$\pm 0.04\%$ / $^{\circ}\text{C}$ max. Output
Display Lamp:	Green LED
Power Supply Voltage:	100 - 240V AC $\pm 10\%$ 50/60Hz
Rush Current:	15mA max. (at 100V of power supply voltage) 30mA max. (at 200V of power supply voltage)
Current Consumption:	Approx. 70mA max.
Insulation Resistance:	500V DC 100M Ω max. between power supply and output terminal 500V DC 100M Ω max. between power supply and earth terminal 500V DC 100M Ω max. between output and earth terminal
Dielectric Strength:	1 minute at 2000V AC between power supply and output terminal 1 minute at 2000V AC between power supply and earth terminal 1 minute at 1500V AC between output and earth terminal
Operating Temperature/Humidity Range:	-10 - 50 $^{\circ}\text{C}$ / 90%RH max. (no dew condensation)
Stock Temperature:	-20 - 65 $^{\circ}\text{C}$
External Dimension:	80 (H) x 50 (W) x 120 (D) mm
Mounting:	8 pin plug-in or panel/DIN Rail mounting
Weight:	Approx. 250g

ORDERING INFORMATION

ITEMS	CODE	SPECIFICATIONS
SERIES	CP2UE-	DC Voltage Regulator
OUTPUT	12	12V DC $\pm 4\%$ /250mA
	24	24V DC $\pm 4\%$ /125mA
REMARKS	0	Without
	9	With (Please consult before ordering.)

TERMINAL ARRANGEMENT , EXTERNAL DIMENSIONS & PANEL CUTOUT



Unit : mm

 Warning

- * The T71A/H71A/TH71A Series is designed for the control of temperature, humidity and other physical values of general industrial equipment. It is not to be used for any purpose which regulates the prevention of the serious effect on human life or safety.



- * The possibility of loss or damage to your system or property as a result of failure of any part of the process exists, proper safety measures must be made before the instrument is put into use so as to prevent the occurrence of trouble.



The contents of this manual are subject to change without notice.

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