



## 2020 CATALOG

Sensors for Temperature, Humidity & Air Quality

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# TASSERON

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SENSORS & CONTROLS



Tasseron has taken its high quality, value added approach to the HVAC and BAS industries, where we manufacture standardized and custom solutions for temperature, humidity and air quality applications.

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# ABOUT TASSERON

Tasseron celebrates its 100th year of business in 2020!

Founded in 1920 on the import of electronic insulation materials in the Netherlands. The manufacturing of radio receivers began five years later in 1925 and in 1948, Tasseron changed course and began specialization on temperature measurement equipment. Decades later, in 1980, Tasseron built its first temperature sensor.

In 2004, Tasseron opened its first office in North America. The new company had humble beginnings, but customers were won over by Tasseron's unmatched European quality and willingness to build custom designed sensors to match their needs.

The Tasseron Group, made up of 5 companies and 3 manufacturing locations, utilizes a century of experience, innovation, and quality to design new lines of products for the HVAC market.

Tasseron USA continues to work closely with their European counterparts, leveraging relationships that gives Tasseron one of the strongest global reaches in the industry.



## OUR MISSION

To develop and manufacture cost effective sensor solutions that meet the customers' needs and exceed their expectations.

To produce products that are not only the highest quality but also add value to the customer because of their unique design and ease of use.

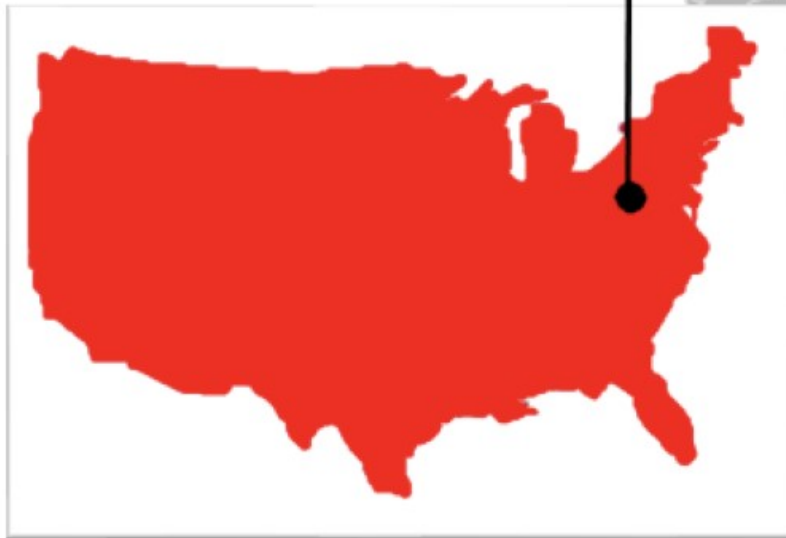
To create a work environment where each employee is part of the solution and their opinion is valued.



# GLOBAL LOCATIONS



**Tasseron Sensors Inc.**  
Pennsylvania, United States



**TASS**  
SENSORS &

**Tasseron Sensors Inc.** is a North American subsidiary for HVAC and OEM temperature sensors and related products for the North American and Canadian HVAC and OEM markets.

**Tasseron Sensors B.V.** develops and manufactures top-quality, custom made temperature sensors and related products for the OEM heating and cooling market.

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**Tasseron Controls B.V.** is a supplier of products specialized for the measurement and control of temperature.



**Tasseron Sensors B.V.**  
**Tasseron Controls B.V.**  
**Tasseron Electronics B.V.**  
Nootdorp, the Netherlands



**Tasseron - SEKC**  
Roermond, the Netherlands

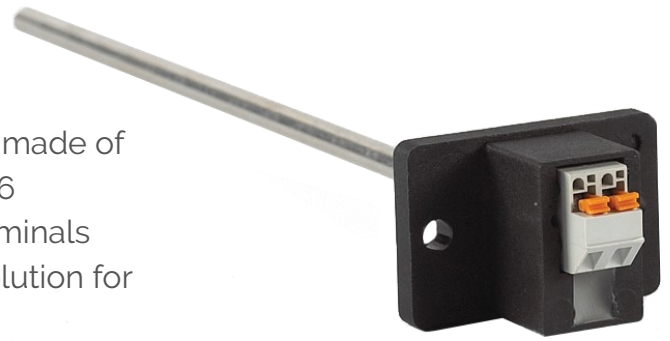


**Tasseron Electronics B.V.** develops and manufactures custom made electronic controls, control valves, EC and pH meters, angle sensors and climate computers. With our own production and R&D department we are able to work together with our customers on new developments.

**Tasseron-SEKC** develops and manufactures high quality cable harnesses and cable assemblies for OEM manufacturers.

# DUCT FLANGE

The Tasseron Duct Flange temperature sensors are made of a durable injection molded material and with AISI 316 Stainless Steel probes. The Quick Connect wire terminals and simple design make this a very cost effective solution for commercial and industrial applications.



## FEATURES

- AISI 316 Stainless Steel probe in 4" / 6" / 8" / 12" / 18" lengths
- Quick Connect terminals for fast installation
- Installed anti-vibration pad on flange



## SPECIFICATIONS

### OPERATING RANGE:

-40...105°C / -40...221°F

### SENSING ELEMENT:

NTC or RTD (see R/T table pg. 28)

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

Two integrated # 8 mounting holes

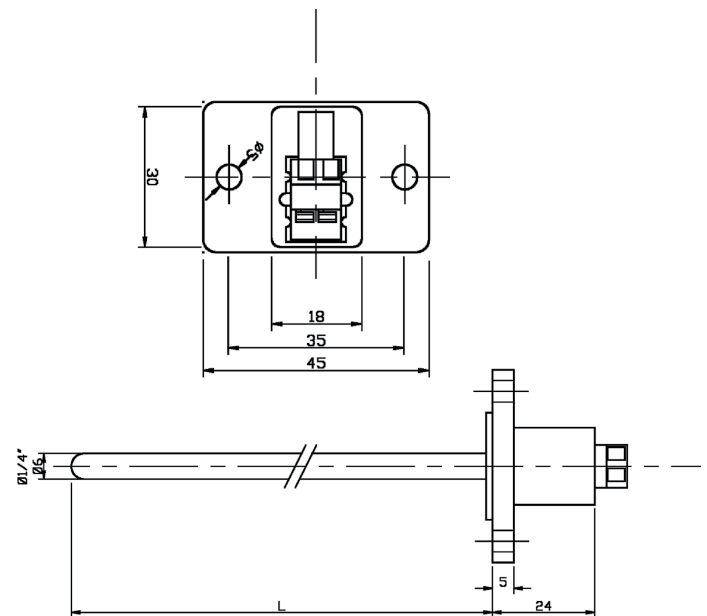
### PROBE:

AISI 316 Stainless Steel, 6mm diameter

### ENCLOSURE:

NEMA 1, IP10, PA 6/6 30% GF, UL94 HB

Part Number: **THTDF-xxx**



DIMENSIONS (in mm)



# DUCT MINI

The Tasseron Duct Mini temperature sensors are in a high quality NEMA 3 injection molded housing, equipped with a quick snap cover, quick connect wire terminals, weathertight grommet, and AISI 316 Stainless Steel probes.

TEMPERATURE



## FEATURES

- AISI 316 Stainless Steel probe in 4" / 6" / 8" / 12" / 18" lengths
- Quick Connect terminals for fast installation
- Anti-vibration pad on mounting flange
- Small, lightweight design



## SPECIFICATIONS

### OPERATING RANGE:

-40...105°C / -40...221°F

### SENSING ELEMENT:

NTC, RTD (see R/T Table pg. 28) or 4-20mA transmitter

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

Two integrated # 8 mounting holes

### PROBE:

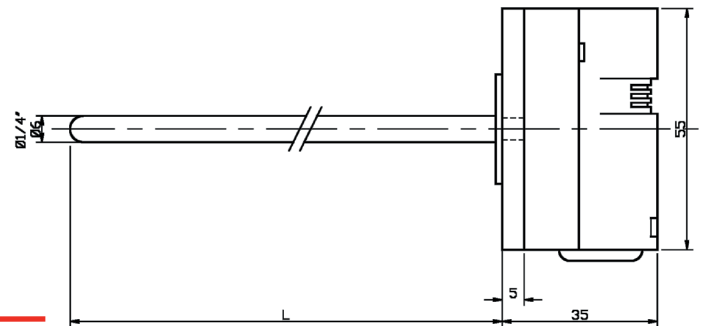
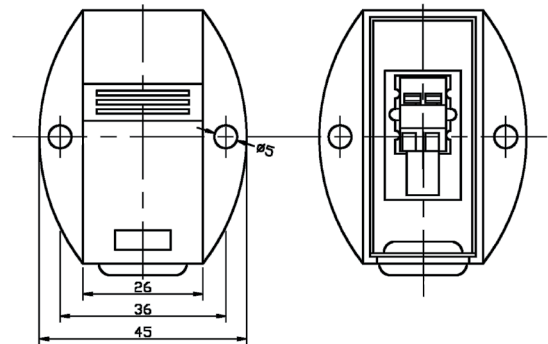
AISI 316 Stainless Steel, 6mm diameter

### ENCLOSURE:

NEMA 3, IP54, PA 6/6 30% GF, Cover PC UL94 HB

Quick Snap Cover

Part Number: THTDP-xxx



DIMENSIONS (in mm)

## ACCESSORY:

### CONDUIT ADAPTER

1/2" NPT threaded click into the bottom and can be purchased separately in packs of 10 or added by Part Number specification. (Change "P" to "C")



# DUCT SAFE BOX

The Tasseron Duct Safe Box temperature sensors are in a high quality weatherproof, polycarbonate NEMA 4X / IP 66 enclosure with an internal hinged cover. All units have a watertight, built in 1/2" NPT threaded conduit connection with 1/2" NPT conduit adapter ports on both sides.



## FEATURES

- AISI 316 Stainless Steel probe in 4" / 6" / 8" / 12" / 18" lengths
- Quick Connect terminals for fast installation
- Additional 1/2" NPT conduit adapter pop-outs on both sides
- Hinged, removable cover with watertight O-ring



## SPECIFICATIONS

### OPERATING RANGE:

-40...105°C / -40...221°F

### SENSING ELEMENT:

NTC, RTD (see R/T Table pg. 28) or 4-20mA transmitter

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

Quick mount bracket

### PROBE:

AISI 316L Stainless Steel, 6mm diameter

### ENCLOSURE:

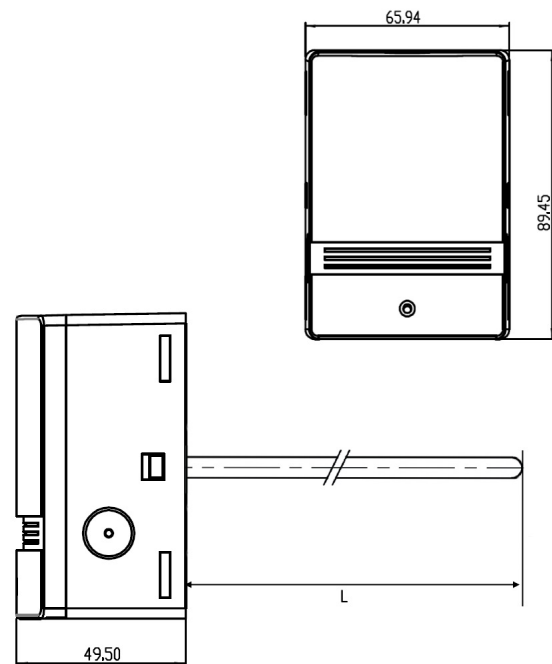
NEMA 4X, IP 66 UV-resistant PC, UL94, V-2

1/2" NPT port on bottom

Internally hinged cover

Part Number: **THTDS-xxx**

DIMENSIONS (in mm)

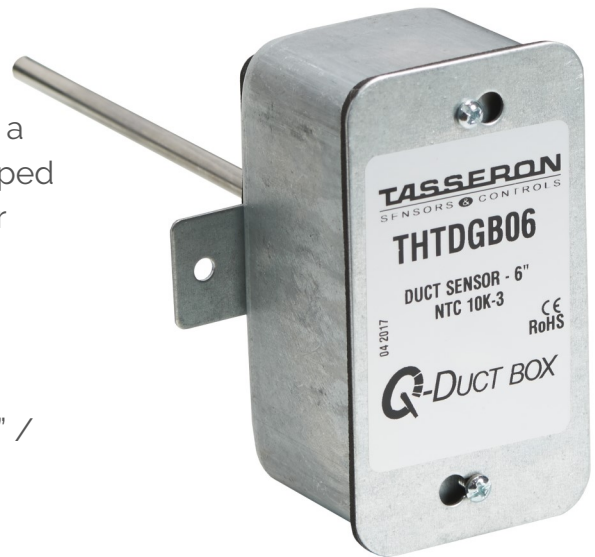


# DUCT BOX

The Tasseron Duct Box temperature sensors are in a high quality Galvanized Steel enclosure, and equipped with a dual-slotted Quick Attach neopreneed cover and 1/2" knock-out on the bottom.

## FEATURES

- AISI 316 Stainless Steel probe in 4" / 6" / 8" / 12" / 18" lengths
- Quick Connect terminals for fast installation
- Dual insulated, closed cell neoprene on backing
- Insulated, dual-slotted Quick Attach cover



## SPECIFICATIONS

### OPERATING RANGE:

-40...125°C / -40...257°F

### SENSING ELEMENT:

NTC, RTD (see R/T Table pg. 28) or 4-20mA transmitter

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

Two integrated # 8 mounting holes

### PROBE:

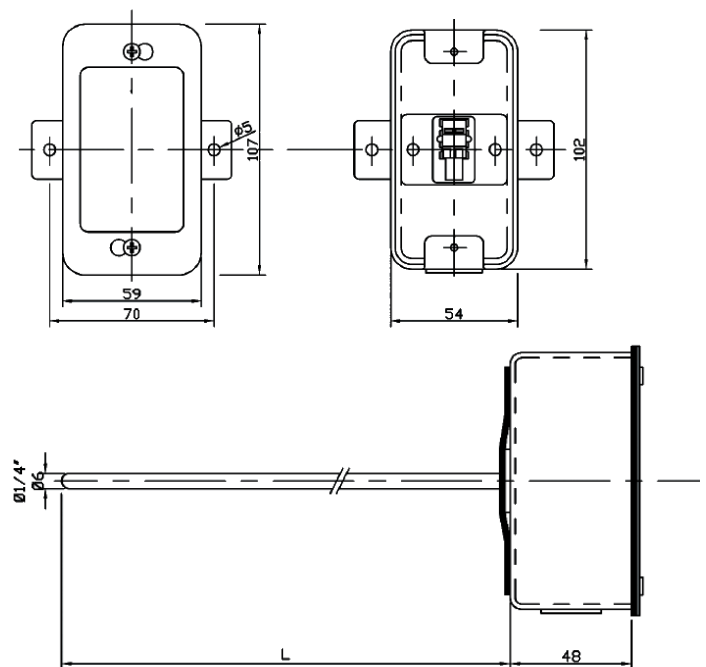
AISI 316L Stainless Steel, 6mm diameter

### ENCLOSURE:

NEMA 2, IP40, 1.2mm Galvanized Steel with  
1/2" port on bottom

Part Number: **THTDG-xxx**

DIMENSIONS (in mm)



## ACCESSORY: WEATHERPROOF GROMMET Part Number: **THXGROM0**

Makes Duct Box and Immersion Box NEMA 3 rated enclosure. Can be purchased separately in packs of 10.



# VAV FLANGE

Tasseron Duct Flange VAV temperature sensors are made of a durable injection molded material and with AISI 316 Stainless Steel probes. The VAV models includes stripped and cut plenum rated wires.



## FEATURES

- AISI 316 Stainless Steel probe in 4" / 6", other on request
- Quick Connect terminals with plenum wire included
- Installed anti-vibration pad on flange



## SPECIFICATIONS

### OPERATING RANGE:

-40...105°C / -40...221°F

### SENSING ELEMENT:

NTC or RTD (see R/T table pg. 28)

### WIRE:

Plenum rated 22 AWG, standard 2ft, 6ft, 9ft, 12ft

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

Two integrated # 8 mounting holes

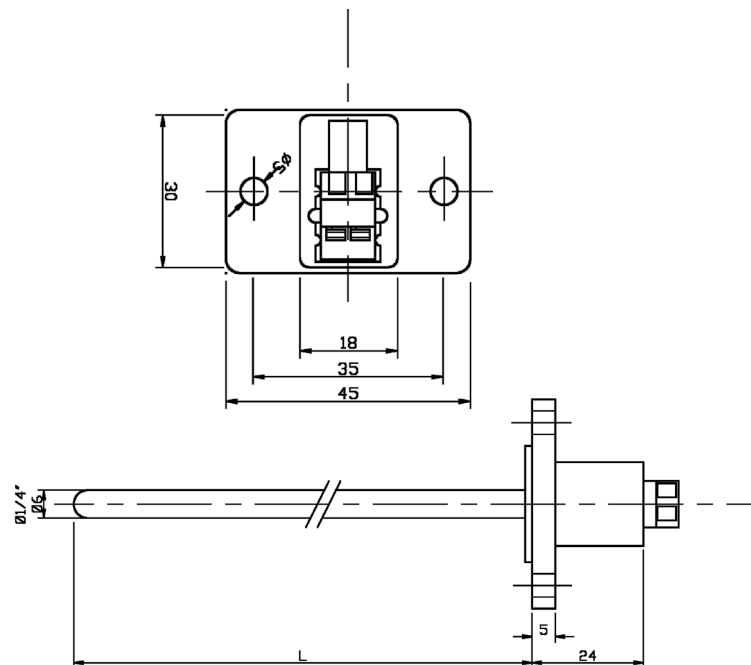
### PROBE:

AISI 316 Stainless Steel, 6mm diameter

### ENCLOSURE:

NEMA 1, IP10, PA 6/6 30% GF, UL94 HB

Part Number: **THTVF-xxx**



DIMENSIONS (in mm)

# VAV MINI

The Tasseron Duct Mini temperature sensors are in a high quality NEMA 3 injection molded housing, equipped with a quick snap cover and AISI 316 Stainless Steel probes.

The VAV models includes stripped and cut plenum rated wire leads.

## FEATURES

- AISI 316 Stainless Steel probe in 4" / 6", other on request
- Quick Connect terminals for fast installation
- Anti-vibration pad on mounting flange
- Small, lightweight design



TEMPERATURE



## SPECIFICATIONS

### OPERATING RANGE:

-40...105°C / -40...221°F

### SENSING ELEMENT:

NTC, RTD (see R/T Table pg. 28) or 4-20mA transmitter

### WIRE:

Plenum rated 22 AWG, standard 2ft, 6ft, 9ft, 12ft

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

Two integrated # 8 mounting holes

### PROBE:

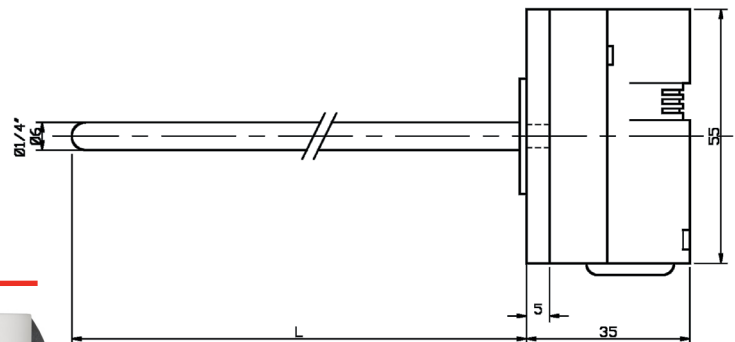
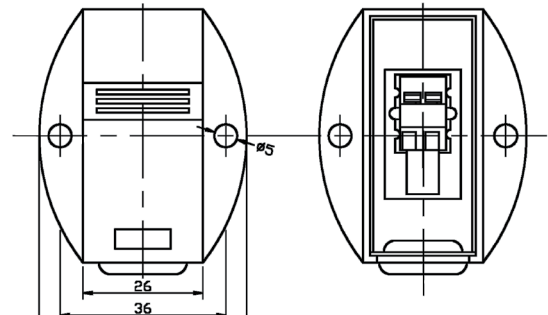
AISI 316 Stainless Steel, 6mm diameter

### ENCLOSURE:

NEMA 3, IP54, PA 6/6 30% GF, Cover PC UL94 HB

Quick Snap Cover

Part Number: **THTVP-xxx**



DIMENSIONS (in mm)

## ACCESSORY:

### CONDUIT ADAPTER

1/2" NPT threaded click into the bottom and can be purchased separately in packs of 10 or added by Part Number specification. (Change "P" to "C")



# IMMERSION FLANGE

The Tasseron Immersion Flange temperature sensors are made of a durable injection molded material with quick connect wire terminals.

The Immersion Series comes standard equipped with 1/2" NPT brass/copper or stainless steel immersion wells and a thermal paste syringe.



## FEATURES

- 2" or 4" lengths with Brass/Copper or 316 Stainless Steel wells
- Includes packaged syringe of thermal paste
- Quick Connect terminals for fast installation



## SPECIFICATIONS

### OPERATING RANGE:

-40...105°C / -40...221°F

### SENSING ELEMENT:

NTC or RTD (see R/T table pg. 28)

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

Two integrated # 8 mounting holes

### PROBE:

AISI 316 Stainless Steel, 6mm diameter

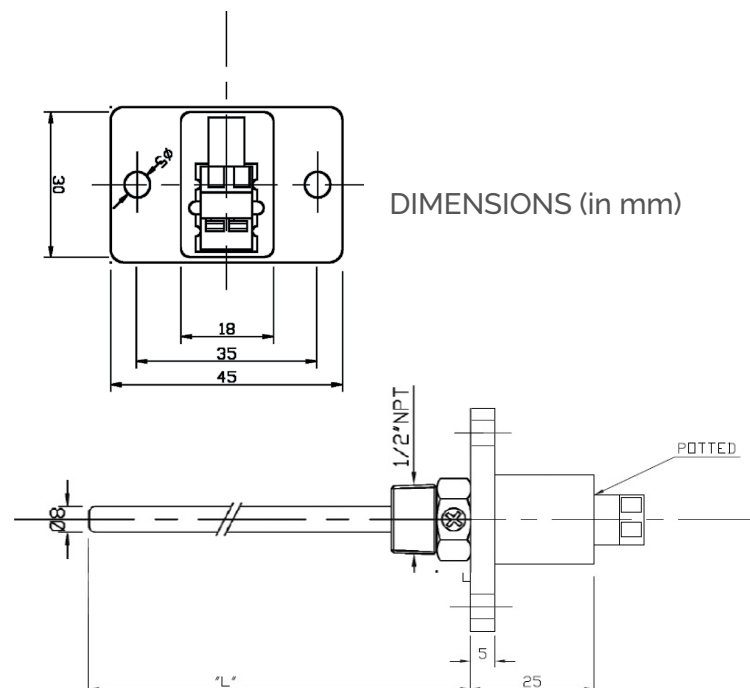
### ENCLOSURE:

NEMA 1, IP10, PA 6/6 30% GF, UL94 HB

### THERMAL WELL:

Welded. Brass/Copper or 316L SS,  
2" or 4" length with set screw and 1/2" NPT thread

Part Number: **THTIF-xxx**



## INCLUDED: Thermal Paste Syringe

- 14 Every Tasseron Immersion Sensor is packed with a Thermal Paste Syringe to ensure fast transfer of temperature.



Also Sold Separate in packs of 10- PART NUMBER: **THXPASTE**

# IMMERSION MINI

The Tasseron Immersion Mini temperature sensors are made of a durable NEMA 3 injection molded housing equipped with a quick snap cover, quick connect wire terminals and weathertight grommet,

The Immersion Series comes standard equipped with 1/2" NPT brass/copper or stainless steel immersion wells and a thermal paste syringe.



## FEATURES

- 2" or 4" lengths with Brass/Copper or Stainless Steel wells
- Includes packaged syringe of thermal paste
- Quick Connect terminals for fast installation



## SPECIFICATIONS

### OPERATING RANGE:

-40...105°C / -40...221°F

### SENSING ELEMENT:

NTC, RTD (see R/T Table pg. 28) or 4-20mA transmitter

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

Two integrated # 8 mounting holes

### PROBE:

AISI 316 Stainless Steel, 6mm diameter

### ENCLOSURE:

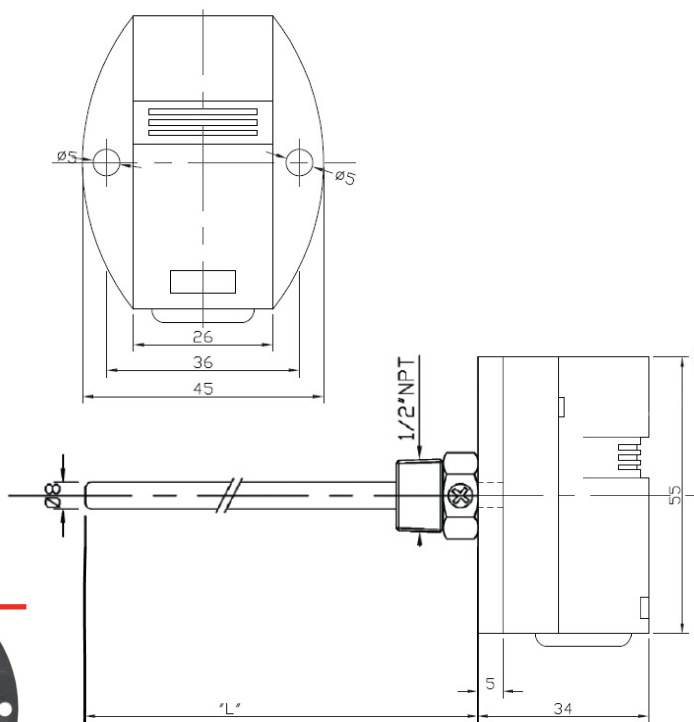
NEMA 3 / IP54, PA 6/6 30% GF, Cover PC UL94 HB

### THERMAL WELL:

Welded. Brass/Copper or 316L SS,

2" or 4" length with set screw and 1/2" NPT thread

Part Number: **THTIP-xxx**



DIMENSIONS (in mm)

## ACCESSORY: CONDUIT ADAPTER

1/2" NPT threaded click into the bottom and can be purchased separately in packs of 10 or added by Part Number specification. (Change "P" to "C")



# IMMERSION SAFE BOX

The Tasseron Duct Safe Box temperature sensors are in a high quality weatherproof, polycarbonate NEMA 4X / IP 66 enclosure with an internal hinged cover. All units have a watertight, built in 1/2" NPT threaded conduit connection with conduit adapter ports on both sides, sealed with rubber grommets.

The Immersion Series comes standard equipped with 1/2" NPT brass/copper or stainless steel immersion wells and a thermal paste syringe.



## FEATURES

- 2" or 4" lengths with Brass/Copper or Stainless Steel wells
- Includes conveniently packaged syringe of thermal paste
- Quick Connect terminals for fast installation
- Weatherproof 1/2" NPT port on the bottom



## SPECIFICATIONS

### OPERATING RANGE:

-40...105°C / -40...221°F

### SENSING ELEMENT:

NTC, RTD (see R/T Table pg. 28) or 4-20mA transmitter

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

Quick mount bracket

### PROBE:

AISI 316L Stainless Steel, 6mm diameter

### ENCLOSURE:

NEMA 4X, IP 66 UV-resistant PC, UL94, V-2

1/2" NPT port on bottom

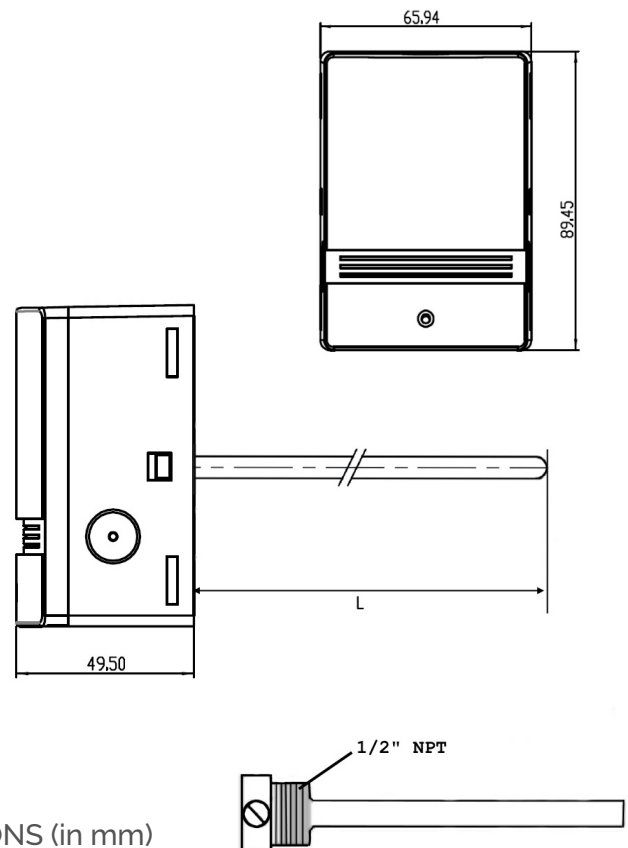
Internally hinged cover

### THERMAL WELL:

Welded. Brass/Copper or 316L SS,

2" or 4" length with set screw and 1/2" NPT thread

Part Number: **THTIS-xxx**



DIMENSIONS (in mm)



# IMMERSION BOX

The Tasseron Duct Box temperature sensors are in a high quality Galvanized Steel enclosure, and equipped with a dual-slotted Quick Attach neopreneed cover, and 1/2" knock-out on the bottom.

The Immersion Series comes standard equipped with 1/2" NPT brass/copper or stainless steel immersion wells and a thermal paste syringe.

## FEATURES

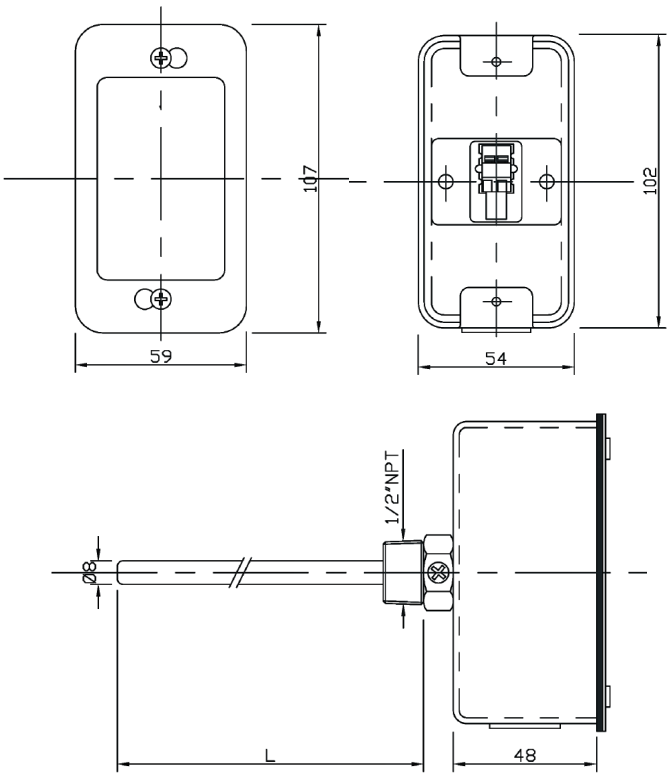
- 2" or 4" lengths with Brass/Copper or Stainless Steel wells
- Quick Connect terminals for fast installation
- Dual insulated, closed cell neoprene on backing
- Insulated, dual-slotted Quick Attach cover



## SPECIFICATIONS

<b>OPERATING RANGE:</b>	-40...125°C / -40...257°F
<b>SENSING ELEMENT:</b>	NTC, RTD (see R/T Table pg. 28) or 4-20mA transmitter
<b>WIRING:</b>	2 pole AWG 22-16 / 0.35—1.5mm <sup>2</sup> spring-loaded
<b>MOUNTING:</b>	Two integrated # 8 mounting holes
<b>PROBE:</b>	AISI 316L Stainless Steel, 6mm diameter
<b>ENCLOSURE:</b>	NEMA 2, IP40, 1.2mm Galvanized Steel, 1/2" knockout on bottom for wiring
<b>THERMAL WELL:</b>	Welded. Brass/Copper or 316L SS, 2" or 4" length with set screw and 1/2" NPT thread

Part Number: **THTIG-xxx**



DIMENSIONS (in mm)

## ACCESSORY: WEATHERPROOF GROMMET Part Number: THXGROM0

Makes Duct Box and Immersion Box NEMA 3 rated enclosure. Can be purchased separately in packs of 10.



# ROOM AERO

The Tasseron Room Aero temperature sensors are in a streamlined, low profile, ABS enclosure. All units have high airflow for fast response, a built-in level, and feature Quick Connect wire terminals. Optional insulation is available.



## FEATURES

- Attractive design that blends into environment
- Built-in level for mounting
- Quick Connect terminals for fast installation
- Private labeling and custom colors available

## SPECIFICATIONS

### OPERATING RANGE:

-40...50°C / -40...122°F

### SENSING ELEMENT:

NTC, RTD (see R/T Table pg. 28) or 4-20mA transmitter

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

2" x 4" Junction Box or drywall mount

### ENCLOSURE:

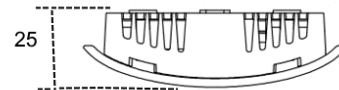
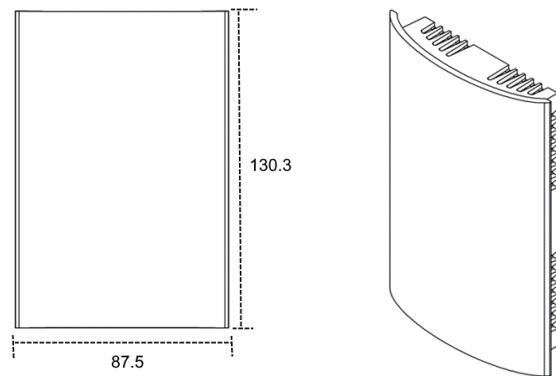
Injection-molded ABS, UL94 HB

### COVER:

Quick Snap, Injection-molded ABS

Part Number: **THTRA-xxx**

DIMENSIONS (in mm)



## BUILT-IN LEVEL AND QUICK CONNECT:

All AERO sensors feature built-in level and Quick Connect wire terminals.



# ROOM AERO

## WITH SETPOINT AND OVERRIDE

The Tasseron Room Aero is available with setpoint and override functionality. Field Selectable dipswitches include multiple override, ground settings and direct/reverse action potentiometer.

### FEATURES

- Vertical setpoint control and override function
- Attractive design that blends into environment
- Built-in level for mounting
- Quick Connect terminals for fast installation
- Private labeling and custom colors available



### SPECIFICATIONS

#### OPERATING RANGE:

-40...50°C / -40...122°F

#### SETPOINT RANGES:

0-10K, 0-20K, 20K-30K, 10-30K

#### SENSING ELEMENT:

NTC, RTD (see R/T table pg. 28)

#### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

#### MOUNTING:

2" x 4" Junction Box or drywall mount

#### ENCLOSURE:

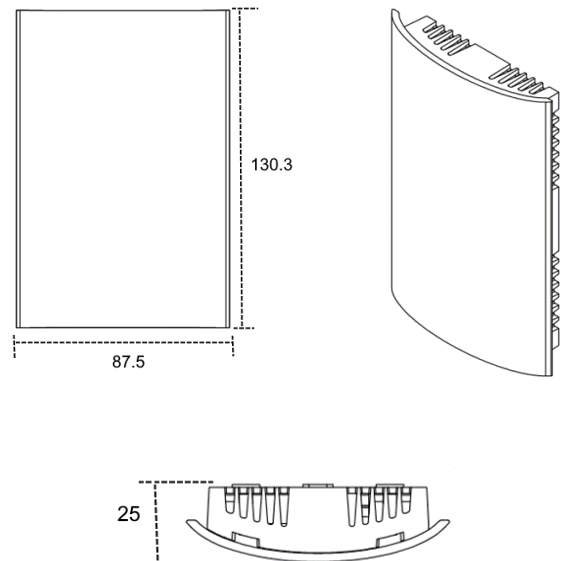
Injection-molded ABS, UL94 HB

#### COVER:

Quick Snap, Injection-molded ABS

Part Number: **THTRA-xxx**

DIMENSIONS (in mm)



# ROOM MINI

The Tasseron Room Mini temperature sensors are in a high quality injection-molded plastic enclosure.

The small, lightweight design provides a NEMA 3 / IP 54 rated indoor option.



## FEATURES

- Small, lightweight design
- Quick Connect wire terminals
- Quick Snap cover

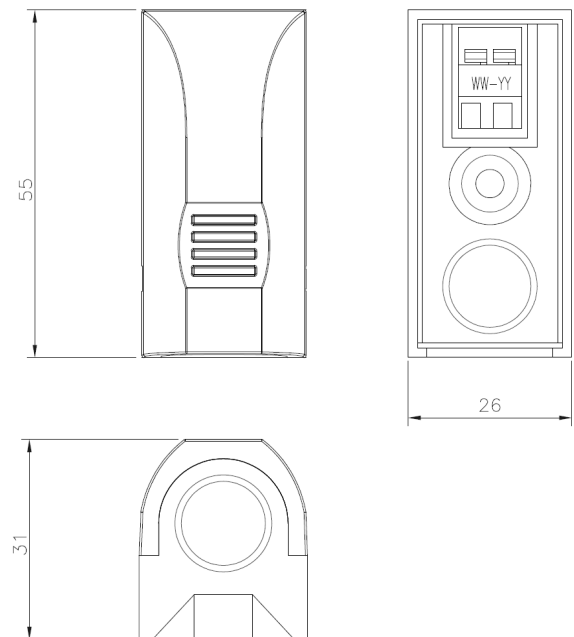


## SPECIFICATIONS

<b>OPERATING RANGE:</b>
-40...50°C / -40...122°F
<b>SENSING ELEMENT:</b>
NTC, RTD (see R/T Table pg. 28) or 4-20mA transmitter
<b>WIRING:</b>
2 pole AWG 22-16 / 0.35—1.5mm <sup>2</sup> spring-loaded
<b>MOUNTING:</b>
Drywall mount
<b>ENCLOSURE:</b>
NEMA 3 / IP 54 injection-molded ABS, UL94 HB
<b>COVER:</b>
Quick Snap, Injection-molded ABS

Part Number: **THTRP-xxx**

DIMENSIONS (in mm)



# WALL PLATE

The Tasseron Wall Plates provide a high quality and low profile installation onto a standard junction box.

Available in stainless steel or powder coated white cover plates with matching mounting screws. Backing is fully insulated and equipped with Quick Connect wire terminals.



TEMPERATURE

## FEATURES

- Fully insulated backing
- White or Stainless plate options
- Quick Connect wire terminals
- Optional private labeling available



## SPECIFICATIONS

### OPERATING RANGE:

0...50°C / 32...122°F

### SENSING ELEMENT:

NTC, RTD (see R/T Table pg. 28) or 4-20mA transmitter

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

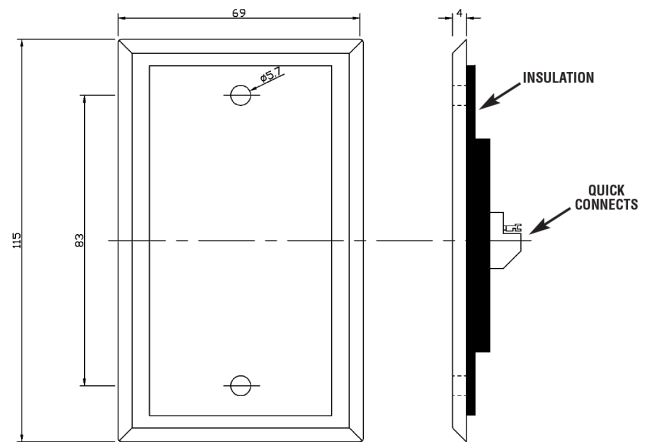
2" x 4" Junction Box, (2) integrated mounting holes

### ENCLOSURE:

Stainless Steel or Powder Coated White Steel

Part Number: THTRW-xxx

DIMENSIONS (in mm)



## QUICK CONNECT AND INSULATION:

All WALL PLATE sensors feature Quick Connect wire terminals and insulated backing.



# OUTDOOR MINI

The Tasseron Outdoor Mini remote temperature sensors are in a high quality injection-molded plastic enclosure. The small, lightweight modern design provides a NEMA 3 / IP 54 rated alternative.



## FEATURES

- Small, compact design
- Quick Connect wire terminals for fast installation
- UV resistant Quick Snap cover

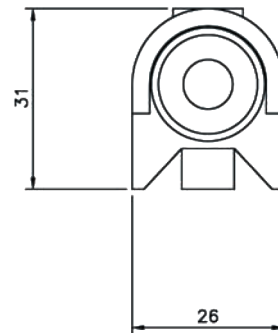
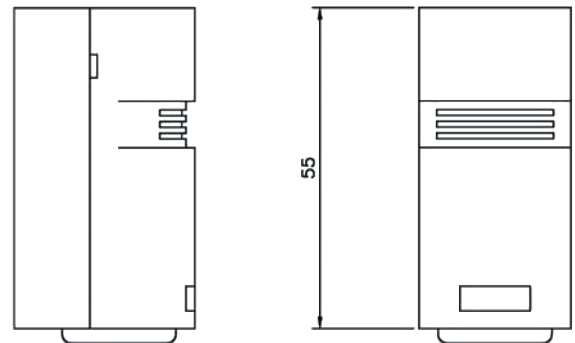


## SPECIFICATIONS

<b>OPERATING RANGE:</b>	-40...50°C / -40...122°F
<b>SENSING ELEMENT:</b>	NTC, RTD (see R/T table pg. 28)
<b>WIRING:</b>	2 pole AWG 22-16 / 0.35—1.5mm <sup>2</sup> spring-loaded
<b>MOUNTING:</b>	Single integrated mounting hole, complete with hardware
<b>ENCLOSURE:</b>	NEMA 3 / IP54, PA 6/6 30% GF,
<b>COVER:</b>	Quick Snap, injection-molded ABS, UV Resistant

Part Number: **THTOP-xxx**

DIMENSIONS (in mm)



## ACCESSORY:

### CONDUIT ADAPTER

1/2" NPT threaded click into the bottom and can be purchased separately in packs of 10 or added by Part Number specification. (Change "P" to "C")



# OUTDOOR SAFE

The Tasseron Outdoor Safe Box temperature sensors are housed in a high quality, weatherproof NEMA 4X / IP 66 polycarbonate enclosure with an internal hinged cover. All units have a watertight, built in 1/2" NPT threaded conduit connection on the bottom.

## FEATURES

- Quick Connect wire terminals for fast installation
- Additional 1/2" conduit adapter pop-out grommets on both sides
- Hinged, removable cover with watertight O-ring
- UV resistant, white polycarbonate



TEMPERATURE



## SPECIFICATIONS

### OPERATING RANGE:

-40...105°C / -40...221°F

### SENSING ELEMENT:

NTC, RTD (see R/T Table pg. 28) or 4-20mA transmitter

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

Quick mount bracket

### PROBE:

AISI 316L Stainless Steel, 6mm diameter

### ENCLOSURE:

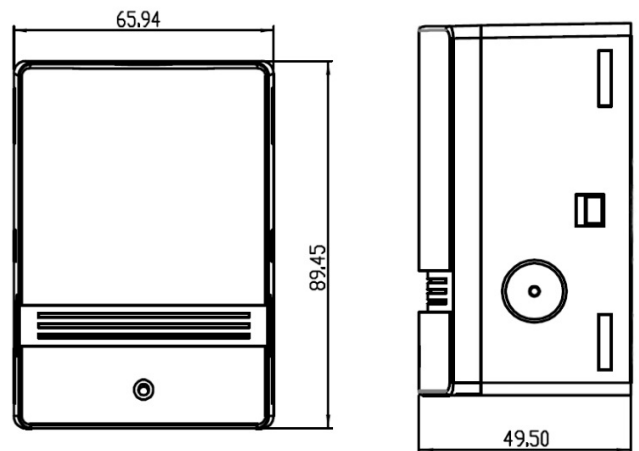
NEMA 4X, IP 66 UV-resistant PC, UL94, V-2

1/2" NPT port on bottom

Internally hinged cover

Part Number: **THTOS-xxx**

DIMENSIONS (in mm)



# CABLE SERIES

The Tasseron Cable sensors come with PVC HT (gray) or High Temperature Silicone (blue) leads.

The Cable Series is available in numerous lengths and temperature elements.



## FEATURES

- Standard 5ft & 10ft lengths with custom lengths available
- IP66 Star-Crimp for watertight applications
- PVC HT and Silicone Cable versions available

## SPECIFICATIONS

### OPERATING RANGE:

**PVC:** -20...105°C / -4...221°F

**SILICONE (NTC):** -40...125°C / -40...257°F

**SILICONE (RTD):** -40...180°C / -40...356°F

### SENSING ELEMENT:

NTC, RTD (see R/T table pg. 28)

### WIRING:

2 pole with stripped wire leads

### ENCLOSURE:

NEMA 4 / IP66

### PROBE:

6mm x 45mm AISI 304 stainless steel

Filled with waterproof compound

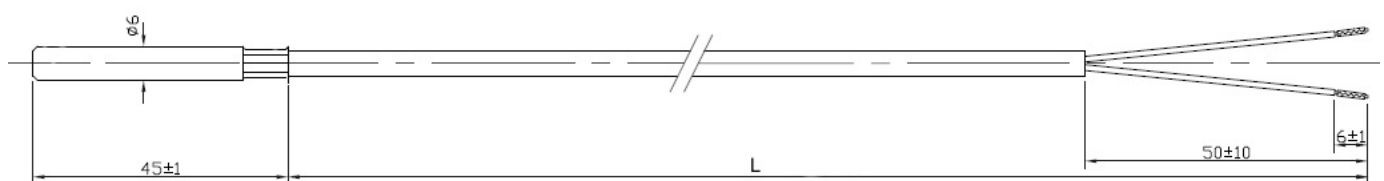
Part Number PVC HT:

**THTCP-xxx**

Part Number Silicone:

**THTCS-xxx**

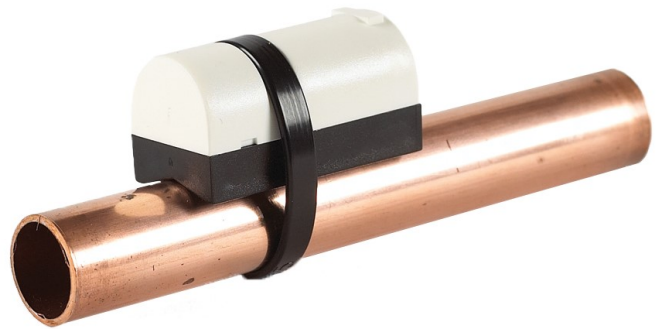
DIMENSIONS (in mm)





# STRAP MINI

The Tasseron Strap Mini temperature sensors are the industry standard solution for pipe surface temperature measurement. The small injection-molded plastic housing provides cost effective, NEMA 3 / IP 54 enclosure with a quick snap cover.



## FEATURES

- Spring Loaded contact surface
- Small, compact design
- Quick Connect wire terminals for fast installation
- Fits pipes as small as 1/2 in



## SPECIFICATIONS

### OPERATING RANGE:

-20...90°C / -4...194°F

### SENSING ELEMENT:

NTC, RTD (see R/T table pg. 28)

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### MOUNTING:

Spring loaded, adjustable contact surface

### ENCLOSURE:

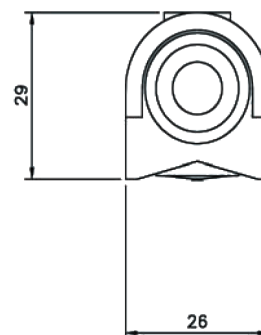
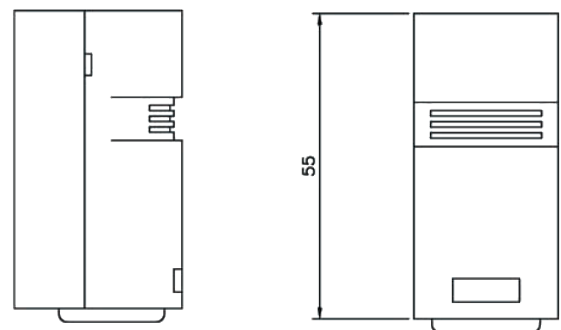
NEMA 3 / IP54, PA 6/6 30% GF, UL 94 HB

### COVER:

Quick Snap, injection-molded ABS, UV Resistant

Part Number: THTSP-xxx

DIMENSIONS (in mm)



## ACCESSORY:

### CONDUIT ADAPTER

1/2" NPT threaded click into the bottom and can be purchased separately in packs of 10 or added by Part Number specification. (Change "P" to "C")



# AVERAGING SERIES



The Tasseron Averaging Series sensors are available with any of the Tasseron Duct enclosures. All units feature the patented, water-tight, quick coupling system for one person installation.

Temperature sensor element placement is marked in the tubing, which allows for strategic location for ideal temperature measurement.



Part Number: **THTAS-xxx**



Part Number: **THTAP-xxx**

## SPECIFICATIONS

### OPERATING RANGE:

-40...105°C / -40...221°F

### SENSING ELEMENT:

NTC, RTD (see R/T Table pg. 28) or 4-20mA transmitter

### NUMBER OF ELEMENTS:

24' has 9 sensors, 12' has 4 sensors, 8' has 4 sensors, 18" has 4 sensors

### WIRING:

2 pole AWG 22-16 / 0.35—1.5mm<sup>2</sup> spring-loaded

### PROBE:

7mm aluminum tubing, 18" 316L SS

### PROBE LENGTH:

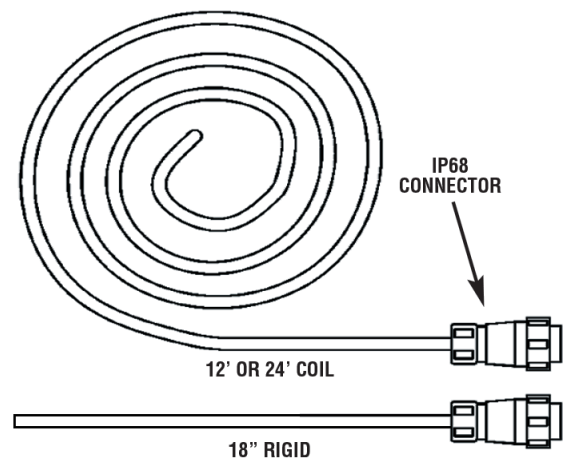
8ft, 12ft, or 24ft coiled, 18in rigid

### QUICK COUPLING:

NEMA 6, IP 68 water-tight from probe to enclosure

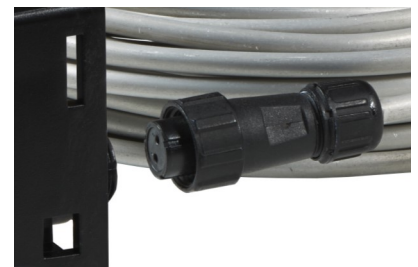
### ENCLOSURE:

See corresponding duct sensor information



## QUICK COUPLING SYSTEM:

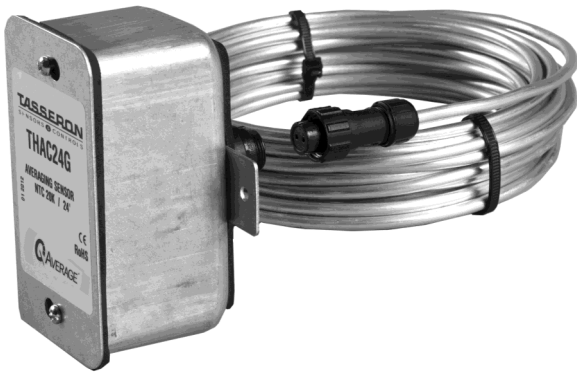
All AVERAGING sensors feature the patented Quick Coupling System for one-person installation.



26 NEMA 6, IP 68 water-tight from probe to enclosure

## FEATURES

- 24' with 9 points of measurement
- 12' with 4 points of measurement
- 8' with 4 points of measurement
- 18" with 4 points of measurement
- Patented Quick Coupling from enclosure to sensing tube
- Quick Connect wire terminals
- Marked sensing element location
- Variety of housing options

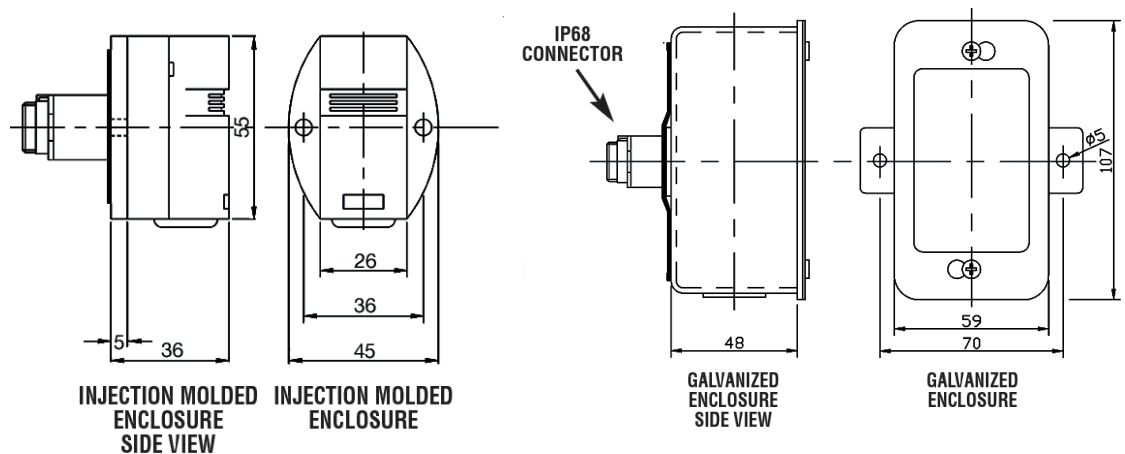


Part Number: **THAG-xxx**



Part Number: **THAF-xxx**

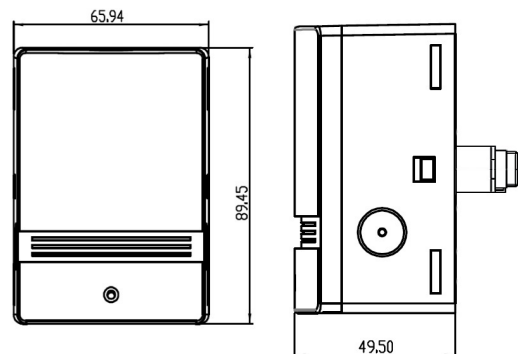
DIMENSIONS (in mm)



### ACCESSORY: MOUNTING CLIPS



Mounting Clips sold separately.



# HVAC temperature measuring elements

## R/T TABLES

Temp		NTC thermistors					RTD elements			
		curve A	curve B	curve G	curve C	curve D	curve E	curve F	curve H	curve K
		NTC 10K type 2	NTC 10K type 3	NTC 10K type 4	NTC 20KOhm	NTC 3KOhm	Pt1000/B	Ni1000-891	Pt100/B	Ni1000-TC5
°C	°F	R (kOhm)	R (kOhm)	R (kOhm)	R (kOhm)	R (kOhm)	R (Ohm)	R (Ohm)	R (Ohm)	R (Ohm)
-40	-40	341.4	242.1	191.9	784.6	97.40	843	697	84.3	831
-35	-31	246.2	181.0	146.6	558.8	71.53	862	719	86.2	851
-30	-22	179.5	136.6	112.9	402.7	52.80	882	743	88.2	872
-25	-13	132.2	103.9	87.59	293.6	39.16	902	766	90.2	893
-20	-4	98.34	79.64	68.47	216.3	29.24	922	790	92.2	914
-15	5	73.73	61.54	53.91	160.7	22.04	941	815	94.1	935
-10	14	55.78	47.91	42.74	120.5	16.74	961	839	96.1	956
-5	23	42.59	37.57	34.11	91.07	12.79	980	864	98.0	978
0	32	32.82	29.66	27.40	69.40	9.856	1000	891	100.0	1000
5	41	25.52	23.57	22.14	53.33	7.663	1020	916	102.0	1022
10	50	19.97	18.85	17.99	41.28	5.999	1039	942	103.9	1045
15	59	15.75	15.17	14.72	32.18	4.729	1058	968	105.8	1068
20	68	12.51	12.28	12.09	25.28	3.754	1078	994	107.8	1091
25	77	10.00	10.00	10.00	20.00	3.000	1097	1021	109.7	1114
30	86	8.048	8.184	8.308	15.92	2.416	1117	1048	111.7	1138
35	95	6.516	6.735	6.936	12.75	1.957	1136	1075	113.6	1162
40	104	5.306	5.577	5.819	10.27	1.595	1155	1102	115.5	1186
45	113	4.345	4.641	4.904	8.320	1.307	1175	1130	117.5	1210
50	122	3.578	3.877	4.151	6.779	1.076	1194	1158	119.4	1235
55	131	2.962	3.261	3.529	5.556	0.888	1213	1187	121.3	1260
60	140	2.464	2.756	3.012	4.577	0.737	1232	1216	123.2	1285
65	149	2.060	2.340	2.582	3.788	0.616	1252	1245	125.2	1311
70	158	1.730	1.996	2.221	3.150	0.518	1271	1274	127.1	1337
75	167	1.460	1.707	1.918	2.630	0.441	1290	1304	129.0	1364
80	176	1.236	1.466	1.663	2.206	0.377	1309	1334	130.9	1390
85	185	1.051	1.264	1.446	1.857	0.324	1328	1365	132.8	1417
90	194	0.896	1.095	1.262	1.570	0.278	1347	1396	134.7	1444
95	203	0.767	0.952	1.105	1.333	0.239	1366	1427	136.6	1472
100	212	0.659	0.831	0.970	1.136	0.206	1385	1459	138.5	1500
105	221	0.569	0.728	0.855	0.972	0.179	1404	1491	140.4	1528
110	230	0.493	0.640	0.755	0.834	0.156	1423	1524	142.3	1557
115	239	0.428	0.564	0.669	0.719	0.136	1442	1556	144.2	1586
120	248	0.374	0.499	0.594	0.621	0.119	1461	1590	146.1	1615
125	257	0.327	0.443	0.529	0.539	0.105	1479	1623	147.9	1645

\* Other elements on request

HOW TO BUILD A TASSERON TEMPERATURE PART NUMBER

Sample Part number: THTDPA06 —Duct Mini sensor in 10k Type 2 with a 6” probe

T H T D P A O 6

TEMPERATURE

Tasseron — HVAC— Temp	APPLICATION	HOUSING	ELEMENT	DETAILS	DETAILS
	A—Averaging	F - Flange	A—10K -2	0	2—2inch
	D—Duct	G - Galvanized Box	B—10K -3	0	4—4inch
		P - Mini	C—20K	0	6—6inch
		S - Safe NEMA4X	D—3K	0	8—8inch/feet(avg)
		C - Mini Conduit	E—Pt1000	1	2—12inch/feet(avg)
	V—VAV	F - Flange	F—Ni1000-891	1	8—18inch
		P - Mini	G—10K-4	2	4—24 feet(avg)
	I—Immersion	F - Flange	H— Pt100	4	2—4in, w/ 2' leads
		G - Galvanized Box	I—4.7K	4	6—4in, w/ 6' leads
		P - Mini	J—10K-3 (11K)	4	9—4in, w/ 9' leads
		S - Safe NEMA4X	K— Ni1000-TC5	4	D—4in, w/ 12' leads
	R—Room	A - Aero	L—12K	2	A—2” w/adapter
		W - Wall Plate	M—100K	4	A—4” w/adapter
	O—Outdoor	P - Mini	<b>TRANSMITTERS:</b>	4	B—4” w/brass well
		S - Safe	T— 32°F– 212°F	4	S—4” SS well
		C - Mini Conduit	U— 20°F– 120°F	0	S— SS Wall Plate
	S—Strap	P - Mini	V— 0°F– 100°F	0	W—White Wall Plate
		C - Mini Conduit		0	0—Uninsulated Aero
	C—Cable	T - TPE, overmolded		0	I—Insulated Aero
		P - PVC HT		A—S/O w/ 0-10K range	0—Uninsulated Aero
		S - Silicone		B—S/O w/ 0-20K range	0—Uninsulated Aero
				C—S/O w/ 20-30K range	0—Uninsulated Aero
				D—S/O w/ 10-30K range	0—Uninsulated Aero
				A—S/O w/ 0-10K range	I—Insulated Aero
				B—S/O w/ 0-20K range	I—Insulated Aero
				C—S/O w/ 20-30K range	I—Insulated Aero
				D—S/O w/ 10-30K range	I—Insulated Aero
				0	0
				0	0
				0	2 - 2ft cable
				0	5 - 5ft cable
				1	0 - 10ft cable
				2	0 - 20ft cable

# DUCT SAFE HUMIDITY

The Tasseron Duct Safe Humidity or Humidity and Temperature sensors are in the UV resistant, polycarbonate weatherproof Safe Box enclosure.

All units have a 1/2" NPT watertight port with 2 additional watertight ports on both sides for easy wiring and internally hinged cover.



## FEATURES

- Quick Connect wire terminals
- Field Selectable Outputs
- Adjustable length; movable mounting flange
- Coated circuit boards for moisture resistance

## SPECIFICATIONS

### SUPPLY VOLTAGE:

**4-20mA** (100 Ohm Load): 10—35 VDC

**4-20mA** (250 Ohm Load): 13—35 VDC

**0-5V DC**: 8—35 VDC / 10—35 VAC

**0-10V DC**: 13—35 VDC / 13—35 VAC

### HUMIDITY SENSOR:

**Accuracy:**  $\pm 2\%$  /  $\pm 3\%$  /  $\pm 5\%$

**Output:** Analog (0 to 5V, 0 to 10V or 4 to 20mA) or Digital

### TEMPERATURE SENSOR :

NTC or RTD (see R/T Table pg. 28) or 4-20mA transmitter

### OPERATING ENVIRONMENT:

**Humidity:** 0—100%, non-condensing

**Temperature:** -40...60°C / -40...140°F

### WIRING:

**4-20mA** : 2 wire, spring-loaded; **0-5 / 0-10V**: 3 wire, spring-loaded

### MOUNTING:

Quick mount bracket

### PROBE:

Adjustable up to 8in; 30% GF Nylon, UL 94 HB

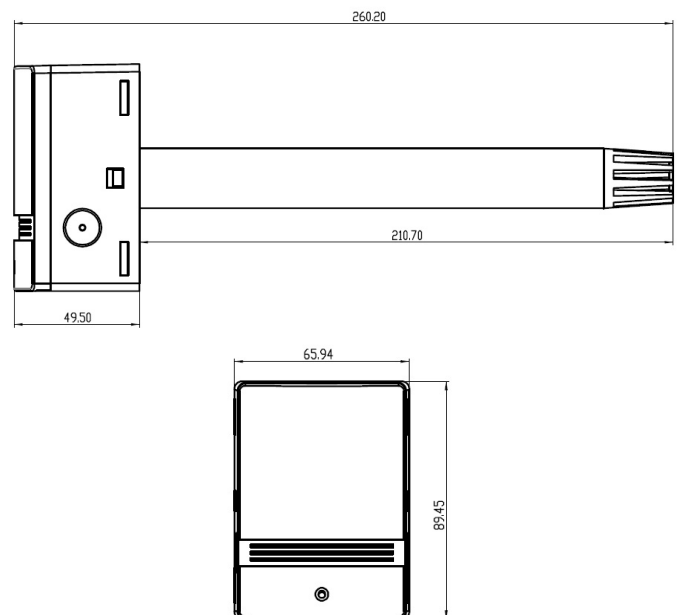
### 30 ENCLOSURE:

NEMA 4X, IP 66 UV-resistant PC, UL94, V-2

Polyethylene Filter, replaceable

Part Number: **THHDS-xxx**

DIMENSIONS (in mm)



# ROOM HUMIDITY

The Tasseron Room Humidity or combination Humidity and Temperature sensors are in the low-profile, streamlined Aero enclosure.

Onboard dipswitches enable field Selectable analog outputs.

## FEATURES

- Quick Connect wire terminals
- Field Selectable Outputs
- Coated circuit boards for moisture resistance
- Highly accurate elements with long-term stability



HUMIDITY



## SPECIFICATIONS

### SUPPLY VOLTAGE:

**4-20mA** (100 Ohm Load): 10—35 VDC

**4-20mA** (250 Ohm Load): 13—35 VDC

**0-5V DC**: 8—35 VDC / 10—35 VAC

**0-10V DC**: 13—35 VDC / 13—35 VAC

### HUMIDITY SENSOR ELEMENT:

**Accuracy:**  $\pm 2\%$  /  $\pm 3\%$  /  $\pm 5\%$

**Output:** Analog (0 to 5V, 0 to 10V or 4 to 20mA) or Digital

### TEMPERATURE SENSOR ELEMENT:

NTC or RTD (see R/T Table pg. 28) or 4-20mA transmitter

### OPERATING ENVIRONMENT:

**Humidity:** 0—100%, non-condensing

**Temperature:** 0...50°C / 32...122°F

### WIRING:

**4-20mA:** 2 wire, spring-loaded; **0-5 / 0-10V:** 3 wire, spring-loaded

### MOUNTING:

2" x 4" Junction Box or drywall mount

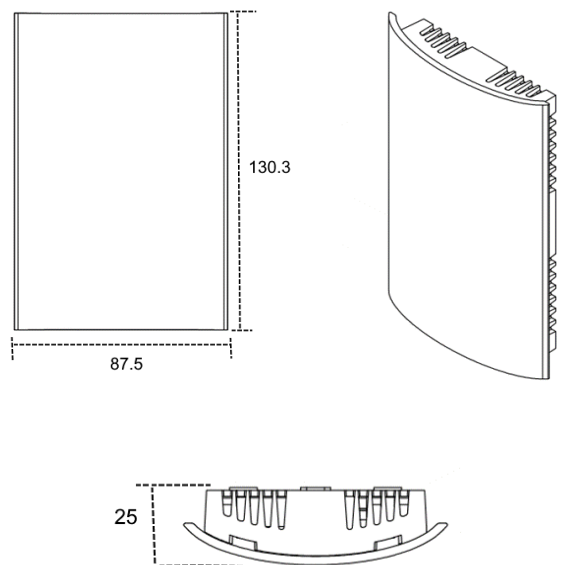
### ENCLOSURE:

Injection-molded ABS, UL94 HB

Quick Snap Cover, Injection-molded ABS

Part Number: **THHRA-xxx**

DIMENSIONS (in mm)



# OUTDOOR SAFE HUMIDITY

The Tasseron Outdoor Safe Humidity or Humidity and Temperature sensors are in UV resistant, polycarbonate weatherproof NEMA 4X / IP 66 enclosure with an internal hinged cover.

All units have a watertight, ports on the side for easy wiring and internally hinged cover.

## FEATURES

- Quick Connect wire terminals
- Field Selectable Outputs
- Coated circuit boards for moisture resistance
- Highly accurate elements with long-term stability



## SPECIFICATIONS

### SUPPLY VOLTAGE:

**4-20mA** (100 Ohm Load): 10—35 VDC

**4-20mA** (250 Ohm Load): 13—35 VDC

**0-5V DC**: 8—35 VDC / 10—35 VAC

**0-10V DC**: 13—35 VDC / 13—35 VAC

### HUMIDITY SENSOR ELEMENT:

±2% / ±3% / ±5% with preset / Selectable Outputs:

0 to 5V, 0 to 10V or 4 to 20mA

### TEMPERATURE SENSOR ELEMENT:

NTC or RTD (see R/T Table pg. 28) or 4-20mA transmitter

### OPERATING ENVIRONMENT:

**Humidity**: 0—100%, non-condensing

**Temperature**: -40...60°C / -40...140°F

### WIRING:

**4-20mA** : 2 wire, spring-loaded; **0-5 / 0-10V**: 3 wire, spring-loaded

### MOUNTING:

Quick mount bracket

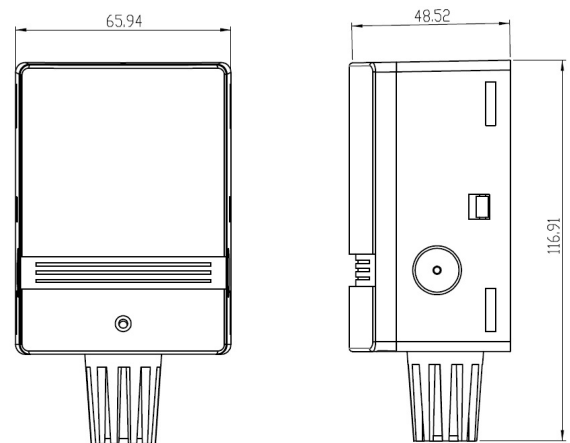
### ENCLOSURE:

NEMA 4X, IP 66 UV-resistant PC, UL94, V-2

Polyethylene Filter, replaceable

Part Number: **THHOS-xxx**

### DIMENSIONS (in mm)





# OEM SURFACE MOUNT HUMIDITY

The Tasseron Surface Mount Utility Humidity or Humidity and Temperature sensors are in a compact, easy to mount enclosure.

Built for high-volume OEM applications, these provide highly accurate measurement of both temperature and humidity while providing a cost effective alternative over less specialized models.

## FEATURES

- Standard 3% RH accuracy, other options available
- 1/4" Faston Tabs or Molex Minifit termination options
- Analog or Digital outputs
- Highly accurate elements with long-term stability



## SPECIFICATIONS

### SUPPLY VOLTAGE:

**4-20mA** (100 Ohm Load): 10—35 VDC

**4-20mA** (250 Ohm Load): 13—35 VDC

**0-5V DC**: 8—35 VDC / 10—35 VAC

**0-10V DC**: 13—35 VDC / 13—35 VAC

### HUMIDITY SENSOR:

±3% (10%-90% RH); 5% (0-100% RH)

Digital (Modbus, I2C, BACnet) or Analog Outputs

### TEMPERATURE SENSOR :

Digital or Passive Resistance

### OPERATING ENVIRONMENT:

**Humidity:** 0—100%, non-condensing

**Temperature:** 0...50°C / 32...122°F

### WIRING:

**4-20mA** : 2 wire, **0-5 / 0-10V**: 3 wire; **Digital**: 4 wire

1/4" Faston Tabs or Molex Minifit

### MOUNTING:

Direct mounting with through hole flange on both sides

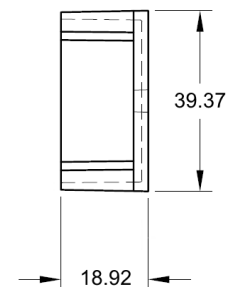
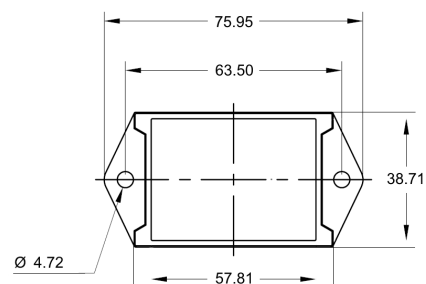
### ENCLOSURE:

Injection-molded ABS with UL 94 V-0 rating

Fully potted sensor

Part Number: **THHS-xxxx**

DIMENSIONS (in mm)



# OEM DUCT MINI HUMIDITY

The Tasseron OEM Duct Mini Humidity or Humidity and Temperature sensors are compact, easy to mount, and very effective with digital or analog signals for implementation.

Built for high-volume OEM applications, these provide highly accurate measurement of both temperature and humidity while providing a cost effective alternative over less specialized models.



## FEATURES

- 2% RH accuracy
- Very low supply voltage for digital models
- Highly accurate elements with long-term stability
- Customizable to provide cost savings

## SPECIFICATIONS

### SUPPLY VOLTAGE:

1.65V to 3.6V DC (Digital Version)

### HUMIDITY SENSOR:

±2% (20-80% RH) ±3.5% (0-100% RH)

Digital (Modbus, I2C, BACnet) or Analog Outputs

### TEMPERATURE SENSOR :

Digital or Passive Resistance

### OPERATING ENVIRONMENT:

Humidity: 0—100%, non-condensing

Temperature: -40...125°C / -40...257°F

### WIRING:

4-wire 16-22AWG;

Screw down terminals

### MOUNTING:

Direct mounting with through hole flange on both sides.

### PROBE:

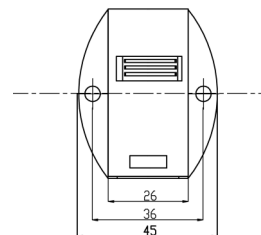
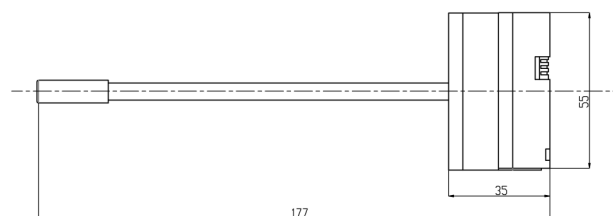
AISI 316L Stainless Steel, 6mm diameter

### ENCLOSURE:

Injection-molded PA 6/6 nylon 30%GF, NEMA 3 / IP54

Part Number: THHDP-xxx

DIMENSIONS (in mm)



# OEM OUTDOOR MINI HUMIDITY

The Tasseron OEM Outdoor Mini Humidity or Humidity and Temperature sensors are compact, easy to mount, and very effective with digital or analog signals for implementation.

Built for high-volume OEM applications, these provide highly accurate measurement of both temperature and humidity while providing a cost effective alternative over less specialized models.

## FEATURES

- 2% RH accuracy
- Very low supply voltage for digital models
- Highly accurate elements with long-term stability
- Customizable to provide cost savings



HUMIDITY

## SPECIFICATIONS

### SUPPLY VOLTAGE:

1.65V to 3.6V DC (Digital Version)

### HUMIDITY SENSOR:

±2% (20-80% RH) ±3.5% (0-100% RH)

Digital (Modbus, I2C, BACnet) or Analog Outputs

### TEMPERATURE SENSOR :

Digital or Passive Resistance

### OPERATING ENVIRONMENT:

Humidity: 0—100%, non-condensing

Temperature: -40...125°C / -40...257°F

### WIRING:

4-wire 16-22AWG;

Screw down terminals

### MOUNTING:

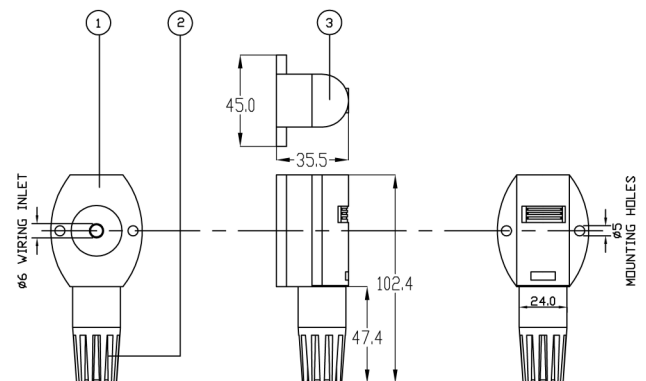
Direct mounting with through hole flange on both sides.

### ENCLOSURE:

Injection-molded PA 6/6 nylon 30%GF, NEMA 3 / IP54

Part Number: THHOP-xxx

DIMENSIONS (in mm)



# OEM HUMIDITY PROBE

The Tasseron Humidity Probe or Humidity and Temperature sensors are in a compact, easy to mount enclosure with digital RH/T outputs.

Built for high-volume OEM applications, these provide highly accurate measurement of both temperature and humidity while providing a cost effective alternative over less specialized models.

## FEATURES

- Standard 2% RH accuracy, other options available
- Very small for tight fitting applications
- Highly accurate elements with long-term stability
- Digital I2C or Modbus output



## SPECIFICATIONS

### SUPPLY VOLTAGE:

3.3—5 VDC

### HUMIDITY SENSOR:

±2% (20% - 80% RH); 3.5% (0-100% RH)

Digital: Modbus or I2C

### TEMPERATURE SENSOR :

Digital: Modbus or I2C

### OPERATING ENVIRONMENT:

Humidity: 0—100%, non-condensing

Temperature: -40...125°C / -40...257°F

### WIRING:

Digital: 4 wire Molex Minifit

### MOUNTING:

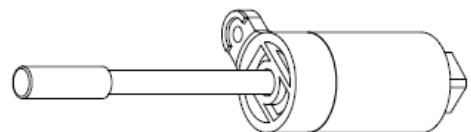
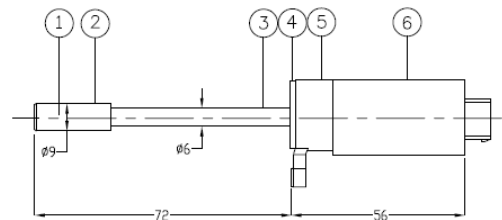
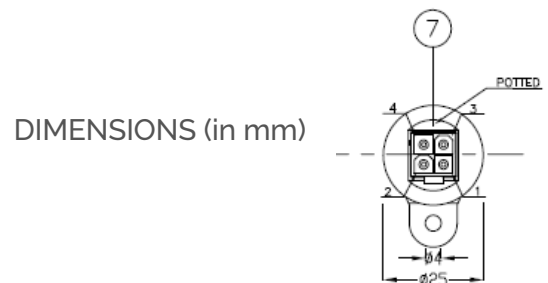
Direct mounting with through hole on flange

### ENCLOSURE:

Injection-molded ABS with UL 94 V-0 rating

Fully potted sensor

Part Number: THHDM-xxx



**HOW TO BUILD A TASSERON HVAC RELATIVE HUMIDITY PART NUMBER**

Sample Part number (THHDSA2A) —

Humidity Duct sensor in Safe Box with 10k Type 2, 2% accuracy RH, and 4-20mA output

**T H H D S A 2 A**

Tasseron— HVAC— Humidity	APPLICATION	HOUSING	ELEMENT	ACCURACY	OUTPUT
	D—Duct	A—Aero	A—10K -2	2—2%	A— 4-20 mA
	O—Outdoor	P—Mini	B—10K -3	3—3%	B— 0-5V
	R—Room	S—Safe	C—20K	5—5%	C—0-10V
	S—Surface	T—Tabs	D—3K		D—Modbus
	T—Threaded	M—Molex	E—Pt1000		E—BACnet
			F—Ni1000-891		F—I2C
			G—10K-4		
			H— Pt100		
			I—4.7K		
			J—10K-3 (11K)		
			K— Ni1000-TC5		
			L—12K		
			M—100K		
			Y—DIGITAL		
			Z—NO TEMP		
			Transmitters:		
			T—Range 1		
			32°F– 212°F		
			U—Range 2		
			20°F– 120°F		
			V—Range 3		
			0°F– 100°F		

# ROOM AERO CO2

The Tasseron Room CO2 or combination CO2 / Temperature sensors are housed in the low-profile, streamlined Aero enclosure.

The Dual Channel NDIR CO2 technology and solid state infrared source ensures long lifetime, excellent accuracy and repeatability with low drift and quick start up.



## FEATURES

- Selectable measurement and output ranges
- Quick connect wire terminals for fast installation
- Dual beam infrared sensing CO2 technology (NDIR)

## SPECIFICATIONS

### SUPPLY VOLTAGE:

24 VAC +/-20%; 18—35 VDC Max

### CO2 SENSOR ELEMENT:

**Accuracy:** ±30ppm +3%; Dual beam infrared NDIR;

**Response:** <2 min with <1min start-up

**Ranges:** 0-2000ppm, 0-5000ppm, 0-10000ppm

**Outputs:** Analog (0 to 5V, 0 to 10V or 4 to 20mA) or Digital

### TEMPERATURE SENSOR ELEMENT:

NTC or RTD (see R/T Table pg. 28) or 4-20mA transmitter

### OPERATING ENVIRONMENT:

**Humidity:** 0—100%, non-condensing

**Temperature:** 0...50°C / 32...122°F

### WIRING:

**4-20mA:** 2 wire, spring-loaded; **0-5 / 0-10V:** 3 wire, spring-loaded

### MOUNTING:

2" x 4" Junction Box or drywall mount, built in level

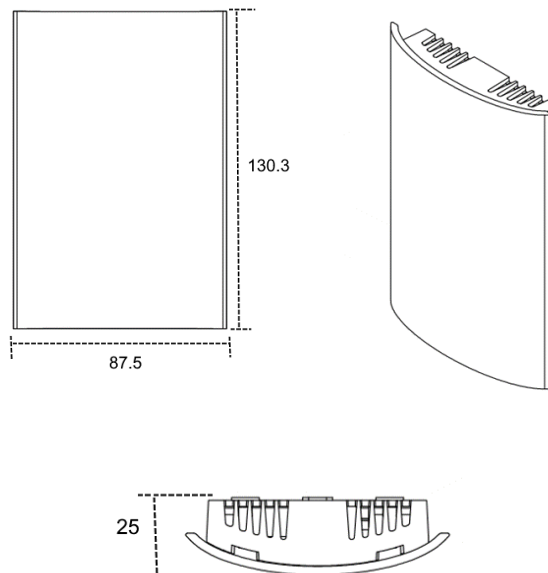
### ENCLOSURE:

Injection-molded ABS, UL94 HB

Quick Snap Cover, Injection-molded ABS

Part Number: THCR-xxxx

DIMENSIONS (in mm)



# ROOM AERO CO<sub>2</sub> / RH COMBO

The Tasseron Room CO<sub>2</sub> and Relative Humidity or combination CO<sub>2</sub>/RH and Temperature sensors are housed in the low-profile, streamlined Aero enclosure.

The Dual Channel NDIR CO<sub>2</sub> technology and solid state infrared source ensures long lifetime, excellent accuracy and repeatability with low drift and quick start up.

## FEATURES

- Standard 2% RH Accuracy
- Selectable measurement and output ranges
- Quick connect wire terminals for fast installation
- Dual beam infrared sensing CO<sub>2</sub> technology (NDIR)



AIR QUALITY

## SPECIFICATIONS

### SUPPLY VOLTAGE:

24 VAC +/-20%; 18—35 VDC Max

### CO<sub>2</sub> SENSOR ELEMENT:

**Accuracy:** ±30ppm +3%; Dual beam infrared NDIR;

**Response:** <2 min with <1min start-up

**Ranges:** 0-2000ppm, 0-5000ppm, 0-10000ppm

**Outputs:** Analog (0 to 5V, 0 to 10V or 4 to 20mA) or Digital

### HUMIDITY SENSOR ELEMENT:

**Accuracy:** ±2%

**Outputs:** Analog (0 to 5V, 0 to 10V or 4 to 20mA) or Digital

### TEMPERATURE SENSOR ELEMENT:

NTC or RTD (see R/T Table pg. 28) or 4-20mA transmitter

### OPERATING ENVIRONMENT:

**Humidity:** 0—100%, non-condensing

**Temperature:** 0...50°C / 32...122°F

### WIRING:

**4-20mA:** 2 wire, spring-loaded; **0-5 / 0-10V:** 3 wire, spring-loaded

### MOUNTING:

2" x 4" Junction Box or drywall mount

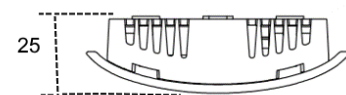
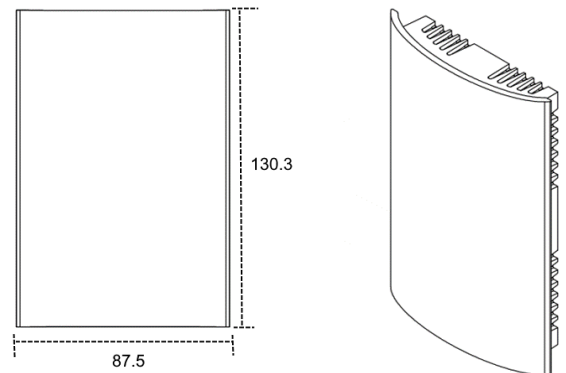
### ENCLOSURE:

Injection-molded ABS, UL94 HB

Quick Snap Cover, Injection-molded ABS

Part Number: **THCD-xx2x**

DIMENSIONS (in mm)



# DUCT SAFE CO<sub>2</sub>

The Tasseron Duct Mount CO<sub>2</sub> transmitter with an optional Humidity and/or Temperature sensor are in the UV resistant, polycarbonate weatherproof Safe Box enclosure.

All units have a watertight internally hinged cover, added ports on the sides for easy wiring and a 1/2" NPT threaded port on the bottom.



## FEATURES

- Selectable CO<sub>2</sub> measurement and output ranges
- Dual beam infrared sensing technology (NDIR)
- Standard 2% RH Accuracy

## SPECIFICATIONS

### SUPPLY VOLTAGE:

24 VAC +/-20%; 18—35 VDC Max

### CO<sub>2</sub> SENSOR ELEMENT:

**Accuracy:** ±30ppm +3%; Dual beam infrared NDIR;

**Response:** <2 min with <1min start-up

**Ranges:** 0-2000ppm, 0-5000ppm, 0-10000ppm

**Outputs:** Analog (0 to 5V, 0 to 10V or 4 to 20mA) or Digital

### HUMIDITY SENSOR ELEMENT:

**Accuracy:** ±2%

**Outputs:** Analog (0 to 5V, 0 to 10V or 4 to 20mA) or Digital

### TEMPERATURE SENSOR ELEMENT:

NTC or RTD (see R/T Table pg. 28) or 4-20mA transmitter

### OPERATING ENVIRONMENT:

**Humidity:** 0—100%, non-condensing

**Temperature:** 0...50°C / 32...122°F

### WIRING:

**4-20mA:** 2 wire, spring-loaded; **0-5 / 0-10V:** 3 wire, spring-loaded

### MOUNTING:

Quick mount bracket

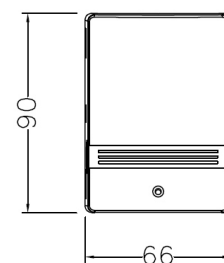
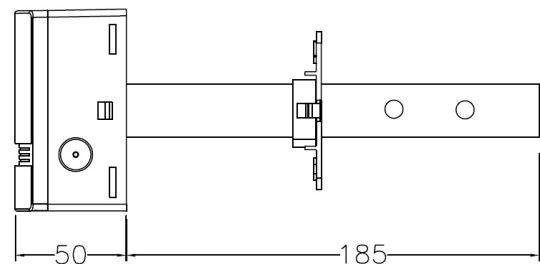
### ENCLOSURE:

NEMA 4X, IP 66 UV-resistant PC, UL94, V-2

Internally hinged cover

Part Number: **THCD-xxxx**

DIMENSIONS (in mm)





# DUCT SAFE VOC / RH

The Tasseron Duct Mount VOC transmitter with an optional Humidity and/or Temperature sensor are in the UV resistant, polycarbonate weatherproof Safe Box enclosure.

All units have a watertight internally hinged cover, added ports on the sides for easy wiring, and a 1/2" NPT threaded port on the bottom.



## FEATURES

- Total VOC from 60,000ppb with 15% accuracy
- Optional CO<sub>2</sub> equivalent 0-2000ppm
- Standard 3% RH accuracy



AIR QUALITY

## SPECIFICATIONS

### SUPPLY VOLTAGE:

13—35 VDC or VAC

### VOC SENSOR ELEMENT:

**Accuracy:** ±15%; Dual beam infrared NDIR;

**Resolution:** 1ppb, 6ppb, 32ppb

**Range:** 0—60,000ppb;

**Outputs:** Analog (0 to 5V, 0 to 10V or 4 to 20mA) or Digital

### HUMIDITY SENSOR ELEMENT:

**Accuracy:** ±3%

**Outputs:** Analog (0 to 5V, 0 to 10V or 4 to 20mA) or Digital

### TEMPERATURE SENSOR ELEMENT:

NTC or RTD (see R/T Table pg. 28) or 4-20mA transmitter

### OPERATING ENVIRONMENT:

**Humidity:** 0—100%, non-condensing

**Temperature:** 0...50°C / 32...122°F

### WIRING:

**4-20mA:** 2 wire, spring-loaded; **0-5 / 0-10V:** 3 wire, spring-loaded

### MOUNTING:

Quick mount bracket

### ENCLOSURE:

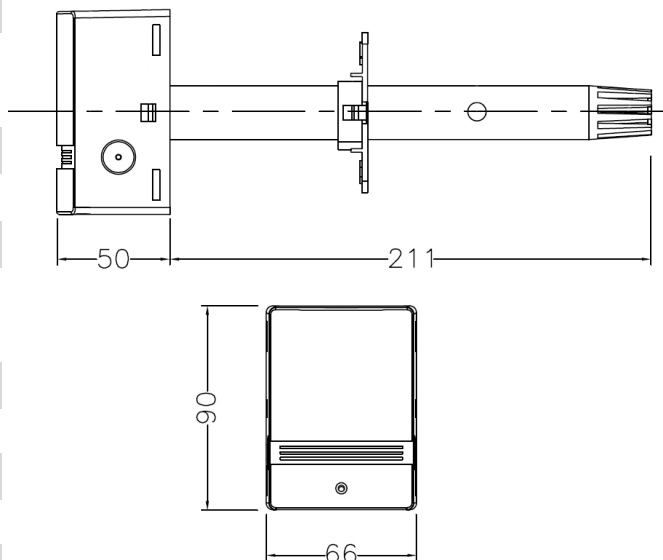
NEMA 4X, IP 66 UV-resistant PC, UL94, V-2

Polyethylene Filter, replaceable

Internally hinged cover

Part Number: **THVD-xxxx**

DIMENSIONS (in mm)



**HOW TO BUILD A TASSERON HVAC AIR QUALITY PART NUMBER**

Sample Part number (THHRAA2A) —

CO2 Room sensor, 0-2000ppm range with 10k Type 2 temp, 2% accuracy RH, and 4-20mA output

**T H C R A A 2 A**

Tasseron— HVAC	— CO2	APPLICATION	RANGE	TEMP	RH ACCURACY	OUTPUT
	— VOC	D—Duct	A—0-2000 ppm	A—10K -2	2— 2%	A— 4-20 mA
		R—Room	B—0-5000 ppm	B—10K -3	Z— NO RH	B— 0-5V
		S—Surface	C—0-10k ppm	C—20K		C—0-10V
		T—Threaded		D—3K		D—Modbus
			*VOC ranges not listed	E—Pt1000		E—BACnet
				F—Ni1000-891		F—I2C
				G—10K-4		
				H— Pt100		
				I—4.7K		
				J—10K-3 (11K)		
				K— Ni1000-TC5		
				L—12K		
				M—100K		
				Y—DIGITAL		
				Z—NO TEMP		
				Transmitters:		
				T—Range 1		
				32°F– 212°F		
				U—Range 2		
				20°F– 120°F		
				V—Range 3		
				0°F– 100°F		

AIR QUALITY

# OEM SENSORS

## CUSTOM SOLUTIONS



OEM CUSTOM

Tasseron builds millions of temperature sensors in over 1000 different models annually for OEMs in various industries including boiler manufacturers, coffee makers, aircatering equipment, solar transportation, medical, and many others.

Any size, any type of material, any sensing element, Tasseron can make it. Many times we realize that it's not what you want but what you need that is important.

# CONTACT TEMPERATURE SENSORS - TSA SERIES

## FEATURES

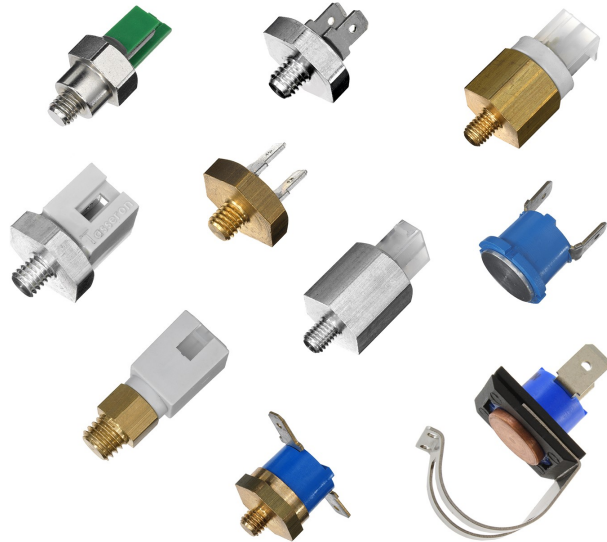
- Small size
- Simple installation
- Short response time
- -20...150°C
- Indirect measurement
- EN 60730-2-9 approved

## APPLICATIONS

- Central heating systems
- Boilers
- Heat exchangers
- Air conditioning equipment
- Heat pumps

## OPTIONS

- Dual sensor (2 x NTC/PTC/Pt)
- Pipe mounting bracket



## GENERAL INFORMATION

Thanks to indirect, derivative temperature measurement on the outside of the application, these miniature contact temperature sensors offer significant cost and installation advantages over traditional immersion sensors.

This product series differentiates itself by an extremely broad selection of measurement elements (NTC, PTC, RTD etc.), electrical connectors, and the means of mounting the sensor to the application.

Besides the standard (single) model featuring one measurement element for use as either a controller or a safety sensor, there are also models with two separate measurement elements (duplex) for use as a combined controller and safety sensor.

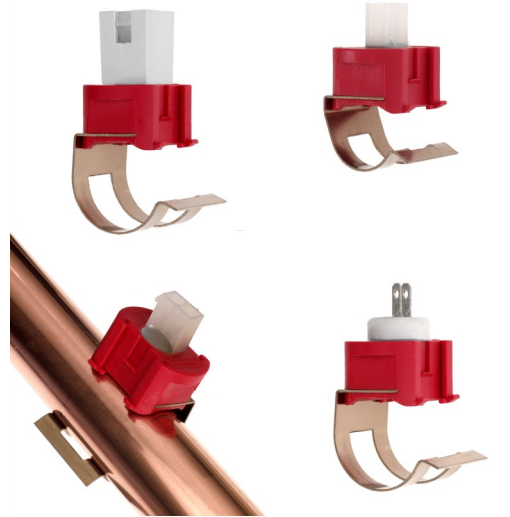
# CLIP ON TEMPERATURE SENSORS - TSB & TSC SERIES

## FEATURES

- Easy mounting
- Short response time
- High measuring accuracy
- Bracket for Ø15, 18, 22, 28 mm pipes
- WN 60730-2-9 approved

## APPLICATIONS

- Boilers
- Central heating systems
- Compressors
- Heat exchangers
- Heat pumps OPTIONS
- Dual sensor (2 x NTC)
- Lockable bracket



OEM CUSTOM

## GENERAL INFORMATION

The Tasseron clip-on sensor is developed for indirect measurement of the medium (water) by clipping it onto a pipe. The clipping system makes a quick and certain fit which offers a cost advantage in installation and servicing. The clipping is simple and there is no chance of breaking thanks to the strong red Polyamide housing.

Even though the sensor features indirect measurement it still has a short response time and high accuracy as a result of the smart construction and the use of high quality materials.

Tasseron has this sensor EN 60730-2-9 approved, which means it can also be used as a safety device.

Even more advantages can be achieved by having two NTC's in one housing. With complimentary electronics one NTC can be used for temperature controlling and the other for safety. One product, one assembly, two functions.

\*SPECIFIC DATASHEET ON REQUEST

# IMMERSION TEMPERATURE SENSORS - TSD SERIES

## FEATURES

- Direct measurement
- Short response time •
- -20...180°C
- EN 60730-2-9 approved

## APPLICATIONS

- Central heating systems and boilers
- Compressors, motors
- Ovens
- Heat exchangers
- Heat pumps
- Kitchen equipment
- Humidifiers
- 

## OPTIONS

- Dual sensor (2 x NTC/PTC/Pt)
- O-ring



## GENERAL INFORMATION

Featuring direct temperature measurement in the medium (water, oil, gas, air etc.), these top-quality miniature immersion sensors offer advantages over surface sensors in terms of response time and accuracy.

This product series differentiates itself by an extremely broad selection of measurement elements (NTC, PTC, RTD etc.), electrical connectors, dimensions, materials, and the means of mounting the sensor to the application.

\*SPECIFIC DATASHEET ON REQUEST

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# AIR/FLUE GAS TEMPERATURE SENSORS - TSD2 SERIES

## FEATURES

- Direct measurement
- Stainless steel tube
- Short response time-20...150°C
- EN 60730-2-9 approved

## APPLICATIONS

- Central heating systems and boilers
- Heat exchangers
- Humidifiers
- Air conditioning

## OPTIONS

- Dual sensor (2 x NTC/Pt)
- O-ring
- Bayonet mount
- Connection cable
- Thermal fuse



OEM CUSTOM

## GENERAL INFORMATION

Featuring direct temperature measurement in the flue gas, these top-quality flue gas sensors offer advantages over standard immersion sensors in terms of easy installation, response time and accuracy

This product series differentiates itself by a broad selection of measurement elements (NTC, RTD etc.), electrical connectors, dimensions, materials, and the means of mounting the sensor to the application.

\*SPECIFIC DATASHEET ON REQUEST

# PIPE MOUNTED CABLE TEMPERATURE SENSORS - TSK SERIES

## FEATURES

- Pipe mounted
- Small design housing
- Universal pipe size  
Ø12...40mm (Ø½" ...1½")
- Various measuring elements  
(NTC / Pt)

## APPLICATIONS

- HVAC & Building controls
- Industrial applications
- Micro CHPs
- Horticulture
- Heat pumps

## OPTIONS

- Mounting set
- Connector
- IP68



## GENERAL INFORMATION

The Tasseron pipe mount cable sensor is developed for indirect temperature measurement of the medium (water) by strapping it onto a pipe. It can be mounted onto any pipe between Ø12...40mm (Ø½" ...1½") diameter. This makes it ideal for various applications or various pipe diameters.

The sensor has a cavity for a secure mounting and a good thermal contact. This results in a quick and accurate measurement.

As an option this sensor can be made IP68 submersible which guarantees a reliable temperature measurement on a condensed pipe.



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# HIGH TEMPERATURE CABLE TEMPERATURE SENSOR - TSK<sub>3</sub> SERIES

## FEATURES

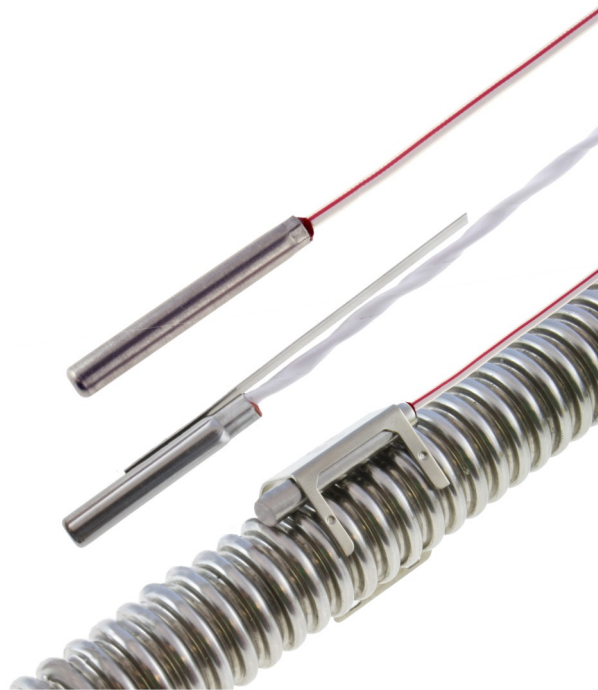
- High temperature 260°C
- Universal application
- High measuring accuracy
- Mounting in any direction
- EN 60730-2-9 approved

## APPLICATIONS

- Solar
- Ovens
- Catering equipment
- Fryers
- Pellet burners

## OPTIONS

- Dual sensor (2 x NTC/Pt)
- Tube fixing strip
- Mounting bracket or flange



OEM CUSTOM

## GENERAL INFORMATION

The Tasseron high temperature cable sensor is developed specifically for application in extreme conditions. The line-welded wire connections and the PTFE cable guarantee a long-term functioning in a temperature range of -40...260°C. The stainless steel (AISI 304) tube is available in various dimensions.

The sensor measures indirectly when placed in an immersion well or installed onto a pipe or surface. For direct measurement it can be placed in the medium (water, oil, gas, air etc.), using a flange.

\*SPECIFIC DATASHEET ON REQUEST

# PROCESS TEMPERATURE SENSOR - TSP SERIES

## FEATURES

- Universal Industrial Dimensions
- Simple installation
- Easy Connection
- -30...150°C
- Direct or Indirect measurement

## APPLICATIONS

- Temperature measurement in high pressure and aggressive mediums in various industries (e.g. heating & horticulture industries)

## OPTIONS

- Dual sensor (2 x NTC/PTC/Pt)
- Transmitter (4-20mA)
- Private Label
- Immersion wells (separate)



## GENERAL INFORMATION

The process temperature sensors are easy to build into an application thanks to their universal dimensions. They enable direct measurement when immersed in the medium (water) via standardized process 1/2" BSP screw thread or in gas (air) via a sliding flange mounting.

Indirect measurement is done by placing it in an immersion well. This offers advantage in applications with an aggressive medium, high pressures or simply to allow for easy replacement.

Furthermore this sensor differentiates itself with its robust and IP54 aluminum connector head. They can also be supplied to third parties under your label or logo, along with the installation manual and appropriate packaging.

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# SENSOR ACCOMMODATING WELLS - TST SERIES

## OPTIONS & FEATURES

- Custom made in Brass, Copper, and high grades Stainless Steel
- Length, threading and diameter are all variable
- One-piece turned or automatically quality welded
- High temperature, corrosion & pressure resistant

## APPLICATIONS

- For sensor and control mounting



OEM CUSTOM

## GENERAL INFORMATION

These wells (tubes) can be placed directly into the medium (water, oil, gas, air etc.) and can accommodate cable sensors, process sensors or other types. This method protects the sensor from negative influences and will also allow for easy replacement while keeping the seal with the medium intact.

This product series differentiates itself by a broad selection of materials, process connectors, diameters, lengths and shapes. Thanks to an intelligent choice of materials and surface treatments, all versions offer very high resistance to temperature, pressure and corrosion. The well can be turned from a single solid blank or assembled from two separate parts welded or soldered together. In any case, a 100% sealing test is standard.

\*SPECIFIC DATASHEET ON REQUEST

Standard or Custom Sensors for  
Temperature, Humidity &  
Air Quality

**TASSERON**  
SENSORS & CONTROLS



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