

OUTSIDE AIR

Weatherproof Outside Air, Thermistors

The ACI Thermistor Outside Air Series features a weather proof European Style Plastic enclosure with twist off cover and water tight cord grip fitting. The sensing element contains two, 14 inch 22 AWG Etched Teflon colored lead wires to differentiate the many different sensor types. All sensors in this series are manufactured using ACI's proven double encapsulation process to eliminate the effects of moisture upon the sensors as well as to increase the thermal response time using our high quality, thermally conductive epoxy. The outside air sensor is a single point sensor designed to be mounted under an eave or on the North side of a building in a shaded location. The sensing tube pointed must be pointed downward to prevent any water or ice from settling in the sensing tube. Optional NEMA 4X "-4X" or NEMA 3R rated "-BB" cast Aluminum enclosure and NIST Certificates are available as specified in the ordering grid on the back of the product data sheet. For Applications in which the sensor must be mounted in direct sunlight, please see the Sun Shield data sheet which will allow you to order a Temperature or Temperature/Humidity Combination sensor.

Applications: Outside Air Temperature Sensing, Cold Storage Facilities, High Dew Point/Condensing Environments

The ACI Thermistor Outside Air Series is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, www.workaci.com.

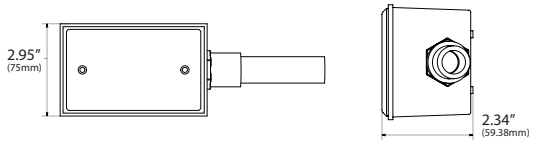
PRODUCT SPECIFICATIONS

Sensor Type | Sensor Curve:	Thermistor | Non-Linear, NTC (Negative Temperature Coefficient)	
Number Sensing Points:	One	
Number Wires:	Two (Non-Polarity Sensitive)	
Sensor Output @25°C (77°F) | (Lead Wire Colors):	**A/1.8K:** 1.8KΩ nominal | (Red/Yellow)	**A/10KS:** 10KΩ nominal | (White/Blue)
	A/3K: 3KΩ nominal | (White/Brown)	**A/10K-E1:** 10KΩ nominal | (Gray/Orange)
	A/AN (Type III): 10KΩ nominal | (White/White)	**A/20K:** 20KΩ nominal | (Brown/Blue)
	A/AN-BC: 5.238KΩ nominal | (White/Yellow)	**A/50K:** 50KΩ nominal | (Brown/Yellow)
	A/CP (Type II): 10KΩ nominal | (White/Green)	**A/100KS:** 100KΩ | (Black/Yellow)
	A/CSI: 10KΩ nominal | (Green/Yellow)	
Accuracy 0-70°C (32-158°F):	+/-0.2°C (+/-0.36°F) except **A/10K-E1 Series:** +/-0.3°C (+/-0.54°F)	
	A/1.8K Series: +/-0.5°C @ 25°C (77°F) and (+/-1.0°C) (+/-1.8°F)	
Power Dissipation Constant:	3 mW/°C except **A/1.8K Series:** 1 mW/°C | **A/10K-E1 Series:** 2 mW/°C	
Stability:	Sensor Dependent; Contact ACI for more information on the sensor in question.	
Response Time (63% Step Change):	25 Seconds nominal	
Enclosure Specifications (Temperature, Material, Flammability, NEMA/IP Ratings):	**"-EH" Enclosure:** PC/ASA Plastic w/ UV Protectant; -40 to 88°C (-40 to 190°F); UL94-V0	
	"-4X" Enclosure: Polystyrene Plastic, -40 to 70°C (-40 to 158°F), UL94-V2, NEMA 4X (IP 66)	
	"-BB" Enclosure: Aluminum, -40 to 121°C (-40 to 250°F), NEMA 3R	
Operating Temperature Range:	-40 to 70°C (-22 to 158°F)	
Storage Temperature Range:	-40 to 70°C (-22 to 158°F)	
Operating Humidity Range:	10 to 100% RH	
Lead Length | Conductor Size:	14" (35.6cm) | 22 AWG (0.65mm)	
Lead Wire Insulation | Wire Rating:	Etched Teflon (PTFE) Colored Leads | MIL-W-16878/4 (Type E)	
Conductor Material:	Silver Plated Copper	
Product Dimensions:	See Drawings on back of Data Sheet	
Product Weight:	**A/XX-O-EH:** 0.46 lbs. (0.21kg) | **A/XX-O-4X:** 0.38 lbs. (0.17kg) | **A/XX-O-BB:** 0.76 lbs. (0.35kg)	
Agency Approvals:	CE, RoHS2, WEEE	

DIMENSIONAL DRAWING, WEIGHTS

xx = Sensor Type

Bell Box Enclosure [BB]



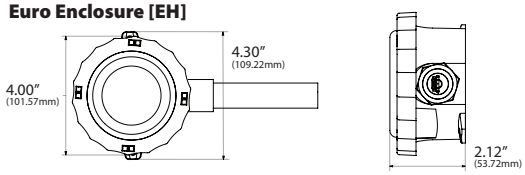
Front & Right Views | **Top View**

Bell Box Enclosure [BB] Weight

ACI Model #	Weight
A/xx-O-BB	0.76 lbs. (0.172 kg)

Product Weight

Euro Enclosure [EH]



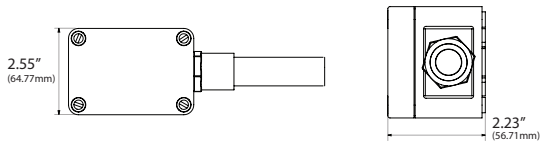
Front & Right Views | **Top View**

Euro Enclosure [EH] Weight

ACI Model #	Weight
A/xx-O-EH	0.46 lbs. (0.345 kg)

Product Weight

NEMA 4X Enclosure [4X]



Front & Right Views | **Top View**

NEMA 4X Enclosure [4X] Weight

ACI Model #	Weight
A/xx-O-4X	0.38 lbs. (0.209 kg)

Product Weight

STANDARD ORDERING

Model # Example: A/CP-O-EH -OR- 125283

Model #	Item #	Description
A/1.8K-O-EH	125163	1.8K Outside Air Sensor, 14″ Leads, Euro Housing
A/1.8K-O-BB	137419	1.8K Outside Air Sensor, 14″ Leads, Aluminum Bell Box
A/3K-O-EH	125241	3K Outside Air Sensor, 14″ Leads, Euro Housing
A/3K-O-BB	121056	3K Outside Air Sensor, 14″ Leads, Aluminum Bell Box
A/AN-O-EH	125268	AN Outside Air Sensor, 14″ Leads, Euro Housing
A/AN-O-BB	121524	AN Outside Air Sensor, 14″ Leads, Aluminum Bell Box
A/AN-BC-O-EH	125262	AN-BC Outside Air Sensor, 14″ Leads, 11K Shunt, Euro Housing
A/AN-BC-O-BB	135315	AN-BC Outside Air Sensor, 14″ Leads, 11K Shunt, Aluminum Bell Box
A/CP-O-EH	125283	CP Outside Air Sensor, 14″ Leads, Euro Housing
A/CP-O-BB	122112	CP Outside Air Sensor, 14″ Leads, Aluminum Bell Box
A/CSI-O-EH	125289	CSI Outside Air Sensor, 14″ Leads, Euro Housing
A/CSI-O-BB	139372	CSI Outside Air Sensor, 14″ Leads, Aluminum Bell Box
A/10KS-O-EH	125197	10KS Outside Air Sensor, 14″ Leads, Euro Housing
A/10KS-O-BB	142405	10KS Outside Air Sensor, 14″ Leads, Aluminum Bell Box
A/10K-E1-O-EH	125609	10K-E1 Outside Air Sensor, 14″ Leads, Euro Housing
A/10K-E1-O-BB	142406	10K-E1 Outside Air Sensor, 14″ Leads, Aluminum Bell Box
A/20K-O-EH	125226	20K Outside Air Sensor, 14″ Leads, Euro Housing
A/20K-O-BB	120663	20K Outside Air Sensor, 14″ Leads, Aluminum Bell Box
A/100KS-O-EH	125176	100KS Outside Air Sensor, 14″ Leads, Euro Housing
A/100KS-O-BB	142407	100KS Outside Air Sensor, 14″ Leads, Aluminum Bell Box

CUSTOM ORDERING

Model # Example: A/ (A.) | 1.8K (B.) | O-EH (C.) | NIST (D.)

		MODEL #
A. Sensor Series *No Selection Required*	**A/** →	**A/**
B. Model Series *Select One (1)*	**1.8K** | **3K** | **AN** | **AN-BC** | **CP** | **CSI** | **10KS** | **10K-E1** | **20K** | **50K** | **100KS**	
C. Configuration *Select One (1)*	**O-EH** = Euro Housing | **O-BB** = Aluminum Bell Box | **O-4X** = NEMA 4X Enclosure	
D. NIST *Select One (1)*	**----** = No NIST Certificate | **NIST** = NIST Certificate (3 Points)	