OUTSIDE AIR
Weatherproof Outside Air, Nickel RTD

The ACI Nickel Outside Air Series features a weather proof European Style Plastic enclosure with twist off cover and water tight cord grip. The sensing element contains two, 14 inch 22 AWG Etched Teflon colored lead wires to differentiate the different sensor types. All sensors in this series are manufactured using ACI's proven double encapsulation process to eliminate the effects of moisture on the sensors as well as to increase the thermal response time using our high quality, thermally conductive epoxy. The outdoor 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 with the sensing tube pointed downward to prevent any water or ice from settling in the sensing tube. Optional NEMA 4X "-4X" plastic or NEMA 3R rated "-BB" Aluminum enclosures and NIST Certificates are available as referenced in the ordering information 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.

O-BB
O-4X
O-EH

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

The ACI Nickel 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:	Nickel RTD | PTC (Positive Temperature Coefficient)
Number Sensing Points:	One
Number Wires:	Two (Non-Polarity Sensitive)
Sensor Output @21.1ºC (70ºF) | Lead Wire Colors:	1000 Ohms nominal | Red/Red
Sensor Accuracy:	**-40ºC (-40ºF):** +/- 1.52ºC (+/- 2.73ºF)
	0ºC (32ºF): +/- 0.4ºC (+/- 0.72ºF)
	21.1ºC (70ºF): +/- 0.17ºC (+/- 0.34ºF))
	54.4ºC (130ºF): +/- 0.56ºC (1.00ºF)
Standardization | Temperature Coefficient (0-100ºC):	Din 43760 | 6370 ppm/ºC
Sensor Stability:	+/- 0.05% after 1000 Hours @ 150ºC (302ºF)
Response Time (63% Step Change)	30 Seconds nominal
Self-Heating | Maximum Operating Current:	0.3ºC/mW (Still Air) | 5 mA
Operating Temperature Range:	-40 to 70ºC (-22 to 158ºF)
Storage Temperature Range:	-40 to 70ºC (-22 to 158ºF)
Operating Humidity Range:	10 to 100% RH, Condensing
Enclosure Specifications (Temperature, Material, Flammability, NEMA/IP Ratings):	**"-EH" Enclosure:** PC/ASA Plastic w/ UV Protectant; -40 to 88ºC (-40 to 190ºF); UL94-V0
	"-4X" Enclosure: Polystyrene Plastic, -40 to 70ºC (-40 to 158ºF), UL94-V2, NEMA 4X (IP 66)
	"-BB" Enclosure: Aluminum, -40 to 121ºC (-40 to 250ºF), NEMA 3R
Lead Length | Conductor Size:	14" (35.6cm) | 22 AWG (0.65mm)
Lead Wire Insulation | Wire Rating:	Etched (PTFE) Teflon 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/1K-NI-O-EH:** 0.46 lbs. (0.21kg) | **A/1K-NI-O-4X:** 0.38 lbs. (0.17kg);
	A/1K-NI-O-BB: 0.76 lbs. (0.35kg)
Agency Approvals:	CE, RoHS2, WEEE

DIMENSIONAL DRAWING, WEIGHTS

xx = Sensor Type

Bell Box Enclosure [BB]

2.95" (75mm)

2.34" (59.38mm)

4.70" (119.50mm)   4.73" (120.14mm)

Bell Box Enclosure [BB] Weight

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

Euro Enclosure [EH]

4.30" (109.22mm)

4.00" (101.57mm)

2.12" (53.72mm)

3.51" (89.16mm)   4.73" (120.14mm)

Euro Enclosure [EH] Weight

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

NEMA 4X Enclosure [4X]

3.70" (93.98mm)   4.73" (120.14mm)

2.55" (64.77mm)

2.23" (56.71mm)

NEMA 4X Enclosure [4X] Weight

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

Front & Right Views	Top View	Product Weight

STANDARD ORDERING

Model # Example: **A/1K-NI-O-EH** -OR- **125209**

Model #	Item #	Description
A/1K-NI-O-EH	125209	1K Nickel, Outside Air Sensor, 14" Leads, Euro Enclosure
A/1K-NI -O-BB	120526	1K Nickel, Outside Air Sensor, 14" Leads, Cast Aluminum Enclosure
A/1K-NI -O-4X	126720	1K Nickel, Outside Air Sensor, 14" Leads, NEMA 4X Enclosure

CUSTOM ORDERING

Model # Example: **A/** **1K-NI** **O-4X** **NIST**
A.   B.   C.   D.

		MODEL #
A. Sensor Series *No Selection Required*	A/	**A/**
B. Model Series *No Selection Required*	1K-NI	**1K-NI**
C. Enclosure *Select One (1)*	**O-EH** = Euro Enclosure	**O-BB** = Aluminum Enclosure	**O-4X** = NEMA 4X Enclosure	
D. NIST *Select One (1)*	**----** = No NIST Certificate	**NIST** = NIST Certificate (Must Specify 1, 3 or 5 Points)	

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RoHS COMPLIANT 2002/95/EC

CE