



# OUTSIDE AIR

## Weatherproof Outside Air, Balco RTD

The ACI Balco 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. Please contact ACI for more information regarding this sensor or to discuss your application in more detail. Other options may be available upon request.

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

**The ACI Balco 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](http://www.workaci.com).**

### PRODUCT SPECIFICATIONS

<b>Sensor Type   Sensor Curve:</b>	Balco RTD   PTC (Positive Temperature Coefficient)
<b>Number Sensing Points:</b>	One
<b>Number Wires:</b>	Two (Non-Polarity Sensitive)
<b>Sensor Output @ 70°F (21.1°C)   Lead Wire Colors:</b>	1000 Ohms nominal   Orange/Yellow
<b>Sensor Accuracy:</b>	<b>70°F (21.1°C):</b> +/- 1%
<b>Temperature Coefficient (0-100°C):</b>	4618 ppm/°C
<b>Sensor Stability:</b>	+/- 0.05% after 1000 Hours @ 150°C (302°F)
<b>Response Time (63% Step Change)</b>	30 Seconds nominal
<b>Maximum Operating Current:</b>	5 mA
<b>Operating Temperature Range:</b>	-40 to 70°C (-22 to 158°F)
<b>Storage Temperature Range:</b>	-40 to 70°C (-22 to 158°F)
<b>Operating Humidity Range:</b>	10 to 100% RH, Condensing
<b>Enclosure Specifications (Temperature, Material, Flammability, NEMA/IP Ratings):</b>	<b>A/BALCO-O-EH Series:</b> ABS Plastic w/ UV Protectant; UL94-V0 <b>A/BALCO-O-4X Series:</b> Polystyrene Plastic; UL94-V2; IP66 (NEMA 4X) <b>A/BALCO-O-BB:</b> Aluminum; IP32 (NEMA 3R)
<b>Lead Length   Conductor Size:</b>	14" (35.6cm)   22 AWG (0.65mm)
<b>Lead Wire Insulation   Wire Rating:</b>	Etched (PTFE) Teflon Colored Leads   MIL-W-16878/4 (Type E)
<b>Conductor Material:</b>	Silver Plated Copper
<b>Product Dimensions:</b>	See Drawings on back of Data Sheet
<b>Product Weight:</b>	<b>A/BALCO-O-EH:</b> 0.46 lbs. (0.21kg)   <b>A/BALCO-O-4X:</b> 0.38 lbs. (0.17kg); <b>A/BALCO-O-BB:</b> 0.76 lbs. (0.35kg)
<b>Agency Approvals:</b>	CE, RoHS2, WEEE





### DIMENSIONAL DRAWING, WEIGHTS

xx = Sensor Type

Bell Box Enclosure [BB]			Bell Box Enclosure [BB] Weight				
<p style="text-align: center;">Front View</p>	<p style="text-align: center;">Right View</p>	<p style="text-align: center;">Top View</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>ACI Model #</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td>A/xx-O-BB</td> <td>0.76 lbs. (0.172 kg)</td> </tr> </tbody> </table>	ACI Model #	Weight	A/xx-O-BB	0.76 lbs. (0.172 kg)
ACI Model #	Weight						
A/xx-O-BB	0.76 lbs. (0.172 kg)						
Euro Enclosure [EH]			Euro Enclosure [EH] Weight				
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A/xx-O-EH	0.46 lbs. (0.345 kg)						
NEMA 4X Enclosure [4X]			NEMA 4X Enclosure [4X] Weight				
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### STANDARD ORDERING

Model # Example: **A/BALCO-O-EH** -OR- 125274

Model #	Item #	Description
<b>A/BALCO-O-EH</b>	125274	Balco, Outside Air Sensor, 14" Leads, Euro Enclosure
<b>A/BALCO-O-BB</b>	121833	Balco, Outside Air Sensor, 14" Leads, Cast Aluminum Enclosure
<b>A/BALCO-O-4X</b>	134237	Balco, Outside Air Sensor, 14" Leads, NEMA 4X Enclosure

### CUSTOM ORDERING

Model # Example: **A/ BALCO O-4X NIST**

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

