ROOM
Wall Mount Enclosures, Balco RTD

R-LCD

R

R2

The ACI Balco Room Series combines option flexibility with attractive styling in our "-R2" or "-R" style enclosures which both include four-way air flow design too minimize self-heating to the sensor. These enclosures are offered in a White "-R2" or Beige "-R" color depending on the enclosure style. All units are designed to be mounted over a single gang junction box or hole in the wall with the use of drywall anchors. Screw terminal blocks are provided for making all connections to the temperature sensor, Set Point, "After Hours" Override, and Communication Jacks for easy access to your building management system. An optional 1/8" Black foam pad with pressure sensitive adhesive is available to insulate the sensor from thermal drafts within the wall or wall surface temperature. A 1/16" Hex driver should be used to secure the cover from being easily removed. The "LCD" option uses two temperature sensors to monitor the ambient air temperature in the space and is factory calibrated at a single point.

Applications: Space Temperature Sensing, Decorative Wall Sensor Applications, Office Buildings, Schools, Colleges, Commercial Buildings, OEM Opportunities

The ACI Balco Room 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.
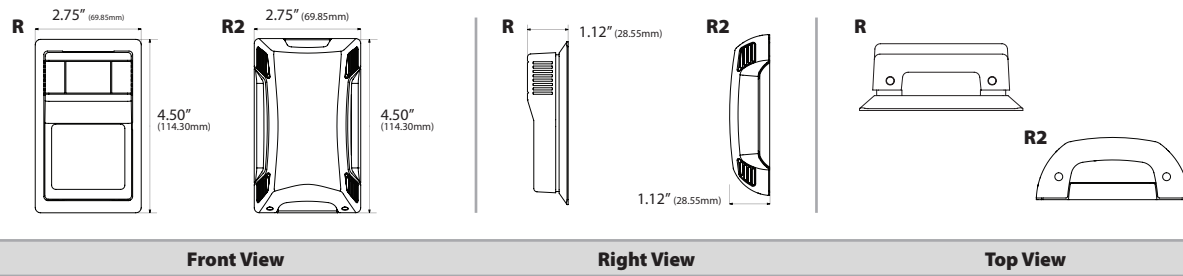
PRODUCT SPECIFICATIONS

Sensor Type | Sensor Curve:	Balco RTD | PTC (Positive Temperature Coefficient)
Number Temperature Sensing Points:	One
Sensor Output @ 70°F (21.1°C):	1000 Ohms Nominal
Sensor Accuracy:	70°F (21.1°C): +/- 1%
Temperature Coefficient (0-100°C):	4618 ppm/°C
Sensor Stability:	+/- 0.05% after 1000 Hours @ 150°C (302°F)
Response Time (63% Step Change):	8 Seconds Nominal
Maximum Operating Current:	5 mA
LCD Display Supply Voltage:	+9 to 35 VDC / 24 VAC (50/60 Hz)
LCD Display Supply Current/VA:	< 4 mA / 0.12VA
LCD Display Accuracy:	+/- 2°F or +/- 2°C @ 71°F (21.5°C) Typical
LCD Display Descriptor:	°F (Fahrenheit) or °C (Celsius)
LCD Display Life Expectancy:	50,000 Hours Minimum
Set Point Specifications | Set Point Indication:	See Ordering Grid Options on back of Product Data Sheet
Set Point Tolerance:	+/- 10% of Range
Override Option:	Short Thermistor (Default); Field (Jumper) Selectable "Dry Contact" Closure
	Short Set Point available upon request
Operating Temperature Range:	1.5 to 50°C (35 to 122°F)
Storage Temperature Range:	**Non-LCD:** -40 to 65°C (-40 to 149°F), **LCD Display:** -10 to 65°C (14 to 149°F)
Operating Humidity Range:	10 to 95% RH, non-condensing
Connections | Wire Size:	Screw Terminal Blocks (Non-Polarity Sensitive) | 16 AWG (1.31 mm²) - 26 AWG (0.129 mm²)
Terminal Block Torque Rating:	0.5 Nm (Minimum); 0.6 Nm (Maximum)
Enclosure Material | Flammability Rating | Color:	**"-R2" Enclosure:** ABS Plastic; UL94-HB, White | **"-R" Enclosure:** ABS Plastic; UL94-HB, Beige
Product Dimensions:	See Drawing on back of Product Data Sheet
Product Weight:	**A/BALCO-R/RS/RO Series:** 0.14 lbs. (63.5g); **A/BALCO-RSO Series:** 0.18 lbs. (81.6g)
	A/BALCO-R2/R2S/R2O Series: 0.16 lbs. (72.6g); **A/BALCO-R2SO Series:** 0.20 lbs. (90.7g)
	All LCD Display Units: 0.18 lbs. (81.6g)
Agency Approvals:	CE**, RoHS2, WEEE

Note:** All LCD Display Units are not CE Compliant, but they are RoHS2 Compliant

RoHS
COMPLIANT
2002/95/EC

Automation Components, Inc.

DIMENSIONAL DRAWING

Front View	Right View	Top View

R — 2.75" (69.85mm) — 4.50" (114.30mm)
R2 — 2.75" (69.85mm) — 4.50" (114.30mm)
R — 1.12" (28.55mm)
R2 — 1.12" (28.55mm)
R
R2

STANDARD ORDERING

Model # Example: **A/BALCO-2** -OR- **144159**

Model #	Item #	Description
A/BALCO-R	144158	1K Balco RTD, "R" Version, Beige, No Options
A/BALCO-R2	144159	1K Balco RTD, "R2" Version, White, No Options

CUSTOM ORDERING

Model # Example:

A/	BALCO	RS	RJ6	LCD	F		0 Ohm	1k Ohms	DA	Cool|Warm	DC
A.	B.	C.	D.	E.	F.	G.	1.	2.	3.	4.	5.

MODEL #

Section	Description	MODEL #
A. Sensor Series *No Selection Required*	A/ ➝	**A/**
B. Model Series *Select One (1)*	BALCO ➝	**BALCO**
C. Configuration *Select One (1)*	**R** = Room │ **RO** = Room with Override │ **RS** = Room with Set Point **RSO** = Room with Set Point and Override │ **R2** = Room │ **R2O** = Room with Override **R2S** = Room with Set Point │ **R2SO** = Room with Set Point and Override	
D. Communication Jack *Select One (1)*	**----** = **No Jack** **RJ4** = 4 Pin 4 Conductor RJ9, RJ10, or RJ22 Style Head Set Modular Connector **RJ6** = 6 Pin 6 Conductor RJ12 Modular Phone Connector **RS232** = 3.5mm (1/8") Stereo Jack	
E. LCD Display [1] *Select One (1)*	**----** = No LCD Display │ **LCD [1]** = With LCD Display *(Only Available with "R" Style Enclosure)*	
F. LCD Display Descriptor *Select One (1)*	**F** = ºF (Fahrenheit) │ **C** = ºC (Celsius)	
G. NIST** *Select One (1)*	**----** = No NIST Certificate │ **NIST** = NIST Certificate (Must Specify 1, 3 or 5 Points)	
Setpoint Configuration Options *Select Options below if RS, RSO, R2S or R2SO was selected as a Configuration (C).*		
1. Offset Resistor *Select One (1)*	**0 Ohm** │ **51.1 Ohm** │ **200 Ohm** │ **499 Ohm** │ **750 Ohm** │ **806 Ohm** │ **910 Ohm** **1.00K** │ **2.00K** │ **2.37K** │ **2.49K** │ **4.75K** │ **4.99K** │ **6.19K** │ **7.32K** │ **8.25K** │ **10K** │ **20K**	
2. Potentiometer *Select One (1)*	**400 Ohm** │ **1K Ohms** │ **2K Ohms** │ **5K Ohms** │ **8.5K Ohms** │ **10K Ohms** **20K Ohms** │ **100K Ohms**	
3. Setpoint Direction *Select One (1)*	**DA** = Direct Acting (Left to Right (Smaller to Larger)) **RA** = Reverse Acting (Left to Right (Larger to Smaller))	
4. Setpoint Indication *Select One (1)*	**+ to -** │ **Blue | Red** │ **Cool | Warm** │ **Cooler | Warmer** │ **10 to 30C** │ **18 to 28C** │ **55 to 85F**	
5. Override Options *Select One (1)*	**SS** = Short Sensor (Default)* │ **DC** = Dry Contact (Separate Input)	

Note [1]: LCD Display is not compatible with NIST │ **Note*:** Short Sensor is our default but the Dry Contact option is field selectable with terminals included
Note:** NIST is available in "R" and "R2" only configurations

ACCESSORIES ORDERING

Model # Example: **A/MOUNTING PLATE BEIGE R** -OR- **106821**

Model #	Item #	Description
A/MOUNTING PLATE BEIGE R	106821	Wall Mounting Back Plate, Plastic, Beige ("R")
A/MOUNTING PLATE WHITE R	143369	Wall Mounting Back Plate, Plastic, White ("R")
A/MOUNTING PLATE WHITE R2	143369	Wall Mounting Back Plate, Plastic, White ("R2")
LOCKING COVER	107370	Clear Thermostat Guard, Locking Cover, Low Profile
A/ROOM-FOAM-PAD	125690	1/8" Foam Insulation Pad with Adhesive (3" x 2", Black)

RoHS COMPLIANT 2002/95/EC