

# A99B Series Temperature Sensor Catalog Page

## Description

The A99B Series Temperature Sensors are passive PTC (Positive Temperature Coefficient) sensors. The A99B sensors are splashproof and are designed to measure temperature in a variety of refrigeration applications. Several accessories allow easy tailoring of the temperature sensor to various mounting configurations.

Applications include temperature sensing for freezers and coolers, as well as in defrost termination sensing, space and return air temperature sensing, and condenser fan cycling.

Refer to the *A99B Series Temperature Sensors Product Bulletin (LIT-125186)* for important product application information.

## Features

- variety of lead lengths available to encompass most application requirements and simplify wiring sensors
- an assortment of mounting hardware provides configurations for many applications
- exceptional accuracy of sensing element provides excellent performance in a wide variety of control applications
- stainless steel sensing bulb allows use in more applications than other types of bulbs without corrosion
- lead length may be extended up to 800 ft (244 m)



**A99B Temperature Sensors**

## Repair Information

If the A99B Series Temperature Sensor fails to operate within its specifications, replace the unit. For a replacement sensor, contact the nearest Johnson Controls® representative.

## Selection Chart

Product Code Number	Description
<b>A99BA-200C</b>	PTC Silicon Sensor with Shielded Cable; Cable length 6-1/2 ft (2 m); Range: -40 to 212°F (-40 to 100°C)
<b>A99BB-25C</b>	PTC Silicon Sensor with PVC Cable; Cable length 9-3/4 in. (0.25 m); Range: -40 to 212°F (-40 to 100°C)
<b>A99BB-200C</b>	PTC Silicon Sensor with PVC Cable; Cable length 6-1/2 ft (2 m); Range: -40 to 212°F (-40 to 100°C)
<b>A99BB-300C</b>	PTC Silicon Sensor with PVC Cable; Cable length 9-3/4 ft (3 m); Range: -40 to 212°F (-40 to 100°C)
<b>A99BB-500C</b>	PTC Silicon Sensor with PVC Cable; Cable length 16-3/8 ft (5 m); Range: -40 to 212°F (-40 to 100°C)
<b>A99BB-600C</b>	PTC Silicon Sensor with PVC Cable; Cable length 19-1/2 ft (6 m); Range: -40 to 212°F (-40 to 100°C)
<b>A99BC-25C</b>	PTC Silicon Sensor with High Temperature Silicon Cable; Cable length 9-3/4 in. (0.25 m); Range: -40 to 248°F (-40 to 120°C)
<b>A99BC-300C</b>	PTC Silicon Sensor with High Temperature Silicon Cable; Cable length 9-3/4 ft (3 m); Range: -40 to 248°F (-40 to 120°C)
<b>A99BC-500C</b>	PTC Silicon Sensor with High Temperature Silicon Cable; Cable length 16-3/8 ft (5 m); Range: -40 to 248°F (-40 to 120°C)
<b>A99BC-1500C</b>	PTC Silicon Sensor with High Temperature Silicon Cable; Cable length 49 ft (15 m); Range: -40 to 248°F (-40 to 120°C)

## Accessories

Product Code Number	Description
<b>A99-CLP-1</b>	Surface Mounting Clip for the A99B Temperature Sensor
<b>ADP11A-600R</b>	1/2 in. diameter EMT Conduit Adaptor (box of 10) for use with BOX10A-600R
<b>BOX10A-600R</b>	PVC Enclosure
<b>SHL10A-600R</b>	Sun Shield for Single Sensor
<b>SHL10A-603R</b>	Sun Shield for Two Sensors
<b>WEL11A-601R</b>	Immersion Well

## Applications

The A99B temperature sensor line offers an economical solution for a wide variety of temperature sensing needs in refrigeration and HVAC applications.

Typical temperature sensing applications and environments include:

- freezers
- display cases
- walk-in coolers
- reach-in coolers
- defrost termination temperature sensing
- condenser fan cycling
- space and return air temperature sensing
- outdoor air sensing
- process cooling and heating

## Technical Specifications

A99B Series Temperature Sensor		
Sensing Range	<b>A99BA</b>	-40 to 212°F (-40 to 100°C)
	<b>A99BB</b>	-40 to 212°F (-40 to 100°C)
	<b>A99BC</b>	-40 to 248°F (-40 to 120°C)
Reference Resistance		1,035 ohms at 77°F (25°C)
Accuracy		0.9°F (0.5°C) between 5 and 167°F (-15 and 75°C)
Sensor Construction		
Sensor Lead Wire Insulation	<b>A99BA</b>	Shielded PVC cable
	<b>A99BB</b>	PVC cable
	<b>A99BC</b>	High temperature silicon cable
Lead Wire Gauge		22 AWG
Maximum Allowable Bulb Temperature		257°F (125°C)
Ambient Operating Conditions	<b>A99BA</b>	-40 to 212°F (-40 to 100°C); 0 to 100% RH, condensing
	<b>A99BB</b>	-40 to 212°F (-40 to 100°C); 0 to 100% RH, condensing
	<b>A99BC</b>	-40 to 248°F (-40 to 120°C); 0 to 100% RH, condensing
Ambient Storage Conditions	<b>A99BA</b>	40 to 221°F (-40 to 105°C); 0 to 100% RH, condensing
	<b>A99BB</b>	40 to 221°F (-40 to 105°C); 0 to 100% RH, condensing
	<b>A99BC</b>	-40 to 266°F (-40 to 130°C); 0 to 100% RH, condensing