A99B Series Temperature Sensor Catalog Page

LIT-1900006

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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)

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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.

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

Selection Chart

Table 1: A99B Series Selection Chart

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

Table 1: A99B Series Selection Chart

Product Code Number	Description
A99BC-25C	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)
A99BC-300C	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)
A99BC-500C	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)
A99BC-1500C	PTC Silicon Sensor with High Temperature Silicon Cable; Cable length 49 ft (15 m); Range: -40 to 248°F (-40 to 120°C)

Accessories

Table 2: Accessories

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

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A99B Series Temperature Sensor Technical Specifications

Table 3: A99B Series Temperature Sensor Technical Specifications

Specification		Description
Sensing Range	A99BA A99BB	-40 to 212°F (-40 to 100°C)
	A99BC	-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		Stainless steel probe
Sensor Lead Wire Insulation	A99BA	Shielded PVC cable
	A99BB	PVC cable
	A99BC	High temperature silicon cable
Lead Wire Gauge		22 AWG
Maximum Allowable Bulb Temperature		257°F (125°C)
Ambient Operating Conditions	A99BA A99BB	-40 to 212°F (-40 to 100°C); 0 to 100% RH, condensing
	A99BC	-40 to 248°F (-40 to 120°C); 0 to 100% RH, condensing
Ambient Storage Conditions	A99BA A99BB	40 to 221°F (-40 to 105°C); 0 to 100% RH, condensing
	A99BC	-40 to 266°F (-40 to 130°C); 0 to 100% RH, condensing

Product warranty

This product is covered by a limited warranty, details of which can be found at www.johnsoncontrols.com/buildingswarranty.

Single point of contact

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