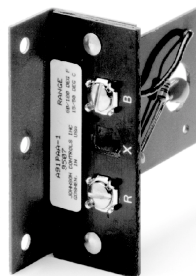


A91 Series

Thermistor Temperature Sensor

**A91GAA Duct Sensor with Enclosure****A91AAA Immersion Sensor****A91PAA Duct Sensor Less Enclosure****A91NAA Outdoor Sensor****Description**

These thermistor sensors are for use with Johnson Controls Series R81Q and R93 controllers to operate Series M100 actuators and R353 series sequencing modules.

Features

- high sensitivity
- fast response
- easy to install and wire

Applications

The sensors are designed for a wide range of applications including space, outdoor, immersion, and duct temperature sensing.

To Order

Specify the code number from the following selection chart.

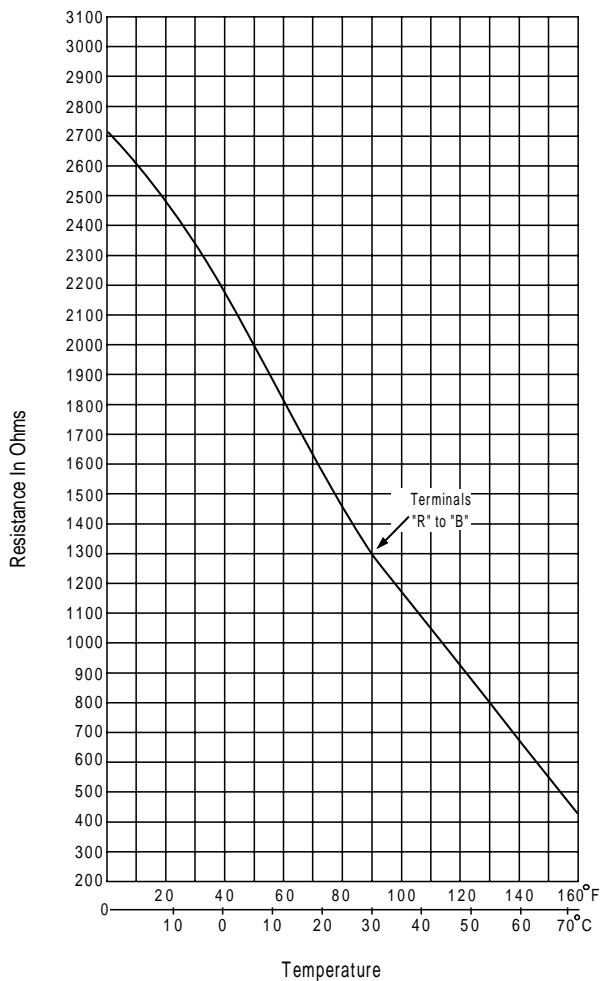
Selection Chart

Code Number	Temperature Range °F (°C)	Description
A91AAA-10C	40 to 90°F (4 to 32)	Immersion sensor
A91AAA-11C	60 to 120°F (15 to 50)	Immersion sensor
A91GAA-1C	60 to 120°F (15 to 50)	Duct sensor with enclosure
A91GAA-2C	40 to 90°F (4 to 32)	Duct sensor with enclosure
A91NAA-3C	40 to 90°F (4 to 32)	Outdoor sensor with enclosure
A91PAA-1C	60 to 120°F (15 to 50)	Duct sensor less enclosure
A91PAA-2C	40 to 90°F (4 to 32)	Duct sensor less enclosure

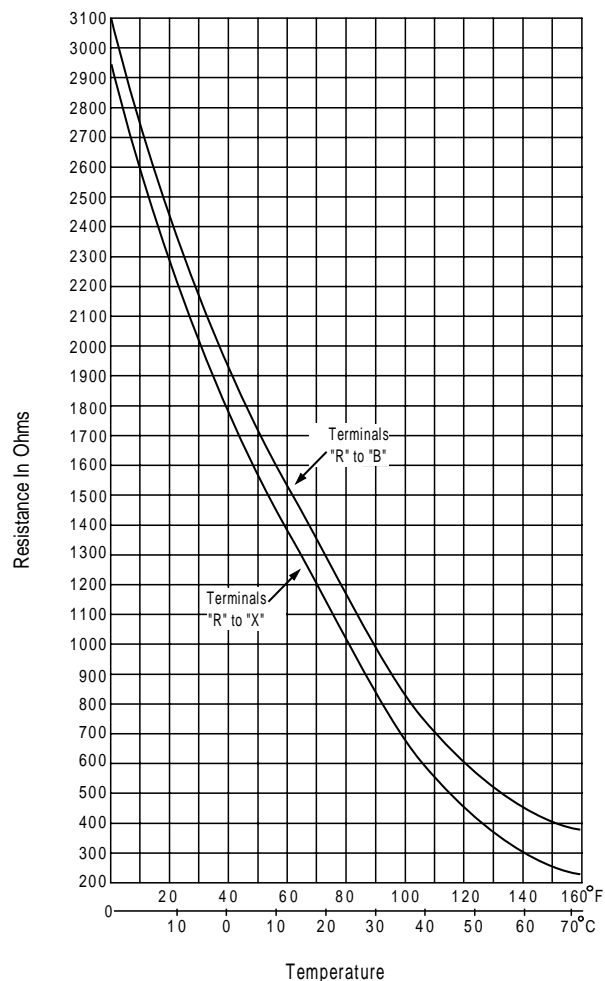
Specifications

A91 Series Thermistor Temperature Sensors	
Ambient Temperatures	Minimum -40°F (-40°C)
	Maximum 140°F (60°C)
Conduit Openings	A91AAA, A91GAA Two 7/8 in. (22 mm) diameter holes for 1/2 in. conduit
	A91NAA One 1/2 in. conduit hub
Element Insertion Depth	A91AAA 2 7/16 in. (62 mm)
	A91GAA 7 3/4 in. (197 mm)
Operating Ranges	40 to 90°F (5 to 30°C), 60 to 120°F (15 to 50°C)
Wiring Connections	Screw type terminals
Material	Enclosure 0.062 in. (1.6 mm) cold rolled steel
	Tube A91AAA—thin copper with soft solder A91GAA—thin aluminum
	Connector A91AAA – 2 1/4 in. (57 mm) extension, 1 1/16 in. (27 mm) hex brass with 3/4 in. NPT threads
Mounting	A91AAA 3/4 in. NPT connector
	A91GAA Two holes in back of case
	A91NAA Three mounting lugs or conduit connector
	A91PAA Two holes in bracket

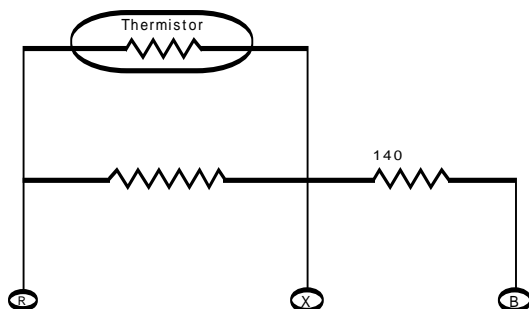
A91 Series Thermistor Temperature Sensor (Continued)



Temperature-Resistance Curve for 60 to 120°F (15 to 50°C) Range



Temperature-Resistance Curve for 40 to 90°F (5 to 30°C) Range and 15 to 50°F (-9 to 10°C) Range



Terminals "R" and "B" Are Used For 40 to 90°F Range With Integral Set point at Controller.

Terminals "R" and "X" Are Used on Applications Requiring Remote Set point.