



### Glass Temperature Sensor

Designed for temperature measurement of flat surfaces such as glass panes. Featuring an aluminum housing for excellent heat transfer and an encapsulated sensor.

### Specifications

Operating Temperature Range	-20 to 70 °C (-4 to 158 °F)
Cable Type (glass)	PVC insulated, parallel bonded (100 Ω, IC Sensors – FT4 CSA rated)
Wiring Connections	Pig Tail (2 or 3 wire)
Sensor Types	100 Ω, 1K PT, 1KΩ Ni RTD's, 1801 Ω, 3K, 10K (type 2 & 3), 20K & 100K Thermistors

### Installation

Install the Glass sensors using a thermal-conductive compound or epoxy between the sensor and the glass for maximum heat transfer.

### Typical Wire Resistance Values

When using low resistance sensors (i.e. 100 ohm RTD), long wire runs can add significant error to the readings. Use the following chart to determine errors due to wire resistance or consider using a 1000 ohm sensor or a transmitter for better accuracy. Locate the type of wire being used. Multiply the total length of the wire (distance from the controller to the sensor and back) by the number found in the following chart for total resistance.

GAUGE WIRE TYPE	18 AWG	22 AWG	24 AWG
STRANDED (OHMS/FOOT)	5.85 mΩ	14.75 mΩ	23.29 mΩ
SOLID (OHMS/FOOT)	6.4 mΩ	15.85 mΩ	25.72 mΩ

### Wiring & Color codes

All two-wire sensors are polarity insensitive. The three-wire sensors have the following color code:

<u>Connection</u>	<u>Space Wire Color</u>	<u>Glass</u>
EXCitation	RED	RED
SENse	RED	GREEN
NEGative	WHITE	BLACK

To connect a three-wire sensor as a two-wire, tie the EXCitation and SENSe lines together. All connections should be made using either butt-splices or soldering. The use of wire nuts is not recommended.