

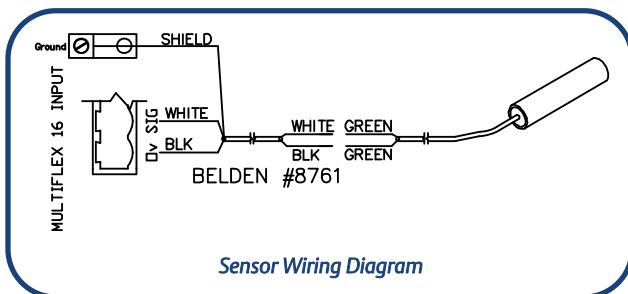
## Overview

The 501-1121 is CPC's general purpose temperature sensor. It is suited for a wide variety of applications. The temperature sensor has a 10K  $\Omega$  thermistor. The thermistor is enclosed in a nickel-plated brass shell with epoxy. The sensor has a green 10' pigtail. The wire is 22 AWG CL3X cord with 2 conductors. The cable is UL rated for 194° F (90° C). The sensor has been tested by CPC to maintain less than 0.72° F error between -40 and 248° F.

## Installation

The sensor connections to the input point on the 16AI board are not polarity sensitive. The sensor is connected as shown below in the Sensor Wiring Diagram. The sensor can be wired to any available point on the 16AI board. Connect one lead to the 0V input, and connect the other lead to the SIG input.

The dip switch for the 16AI input should be set to the ON position.



The sensor includes a metal insulated clamp for securing the sensor. Mounting hardware is not included with the clamp. The sensor can also be secured using standard cable ties (not provided).



*Sensor Clamp*



## Resistance Chart

The accuracy of the resistor can be verified using an Ohm meter. The chart below shows the resistance for various temperatures.

Temperature (°F)	Temperature (°C)	Resistance (Ohms)
-40	-40	336,450
-30	-34	234,170
-20	-29	165,210
-10	-23	118,060
0	-18	85,399
10	-12	62,493
20	-7	46,235
30	-1	34,565
40	4	26,100
50	10	19,899
60	16	15,311
70	21	11,883
80	27	9,299
90	32	7,334
100	38	5,828
110	43	4,664
120	49	3,758
130	54	3,048
140	60	2,488
150	66	2,042
160	71	1,686
170	77	1,400
180	82	1,169
190	88	981
200	93	827