

# ***Bees Industrial Services***

**Experience Versatility Solutions**

Heating Elements - Sensors - Controls - Auxiliary Equipment - Process Heating Systems



## **NEVER MIX THE COMPONENTS THAT MAKE UP YOUR SYSTEM**

Many times when a customer has problems getting accurate temperature readings in their process the problem can be traced to improper application or installation of components (wires and connectors) between the sensor probe and the controller.

A quick reminder about some rules with temperature sensors that cannot be broken:

- Whatever type of “input” the control is looking for is what type of sensor that **MUST** be used. No exceptions
- All components between the tip of the probe all the way back to the control **MUST** be the same throughout.
  - o The probe must match the control
  - o Any extension wire must match the control
  - o Any wire junctions and termination methods must match the control

More often than not, customers are surprised to hear that the “plugs” used on the end of termination is relevant.

- If your Thermocouple is Type J – the Plugs and Jacks **MUST** be Black. Whether they are the Standard size or Mini size.
- If your Thermocouple is Type K – the Plugs and Jacks **MUST** be Yellow. Whether they are the Standard size or Mini size.
- Other types of sensors use different colors. RTD’s, for example, are White

THE POINT IS – always keep in mind that the entire system of temperature sensing is critical and can not be taken for granted. You can not walk to your shelves and “find something that will work” without considering the type of sensor you are using.

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