

SmartProbe wiring on Omega connector

SmartSensor PT 100-3W to a PT100-4W using Omega connector

SmartProbe

Due to its internal architecture, the SmartProbe can compensate automatically for cable resistance up to several hundred meters in length.

- SmartProbe is not intended to support natively 4-wire RTDs, then the 4th wire must be connected correctly.
- Since the 4th wire cannot be open, it must be shorted to its twin.

Consequently, the auto compensation of cable length cannot be done, and the calibration must be done with the final cable length.

Note

- Male: Sensor Side
- Female: SmartProbe side

Omega connector is a 3 point (Sensing + shield) keyed connector natively designed for Thermocouple sensor.

Such connector can be used for 2/3 wires RTD sensors.

Warning: This only applies to SmartProbe PT100, not Digital Temp



Wiring

SmartSensor Side

Figure 1 shows the 3 pin Omega connector on SmartProbe side.

Note that the white wire is in the middle.

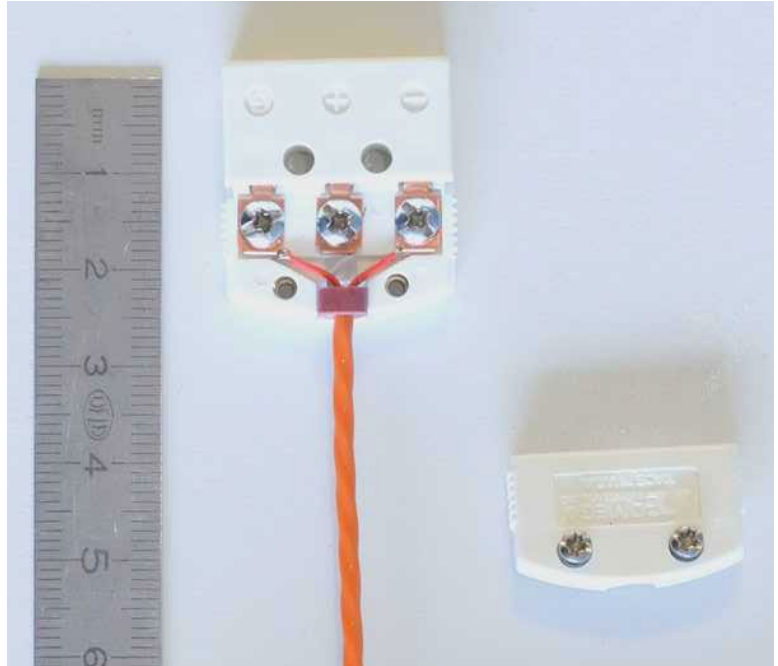


Figure 1 Three wire Omega connector, white wire in the middle

Figure 2 shows the 3 pin Omega connector on SmartProbe side.

Note that for 4 wire RTD probes, the 2 white wires are connected and located in the middle of the Omega connector.

Probe cable length is adjusted according to the customer preference.

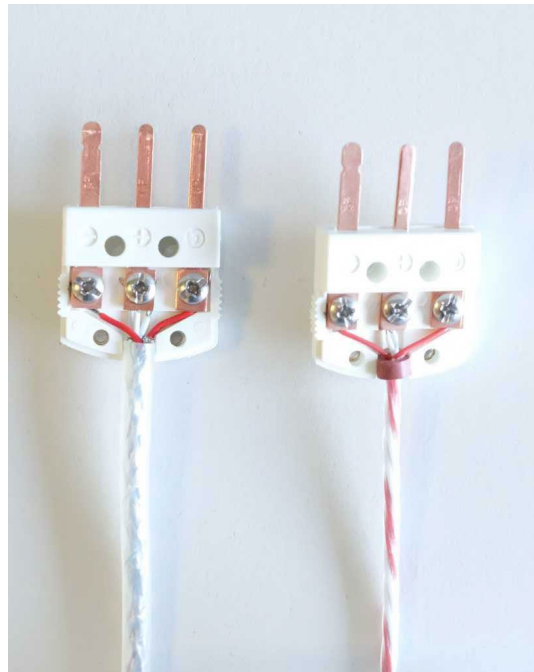


Figure 2 Three wire Omega connector with Four wire RTD

SmartProbe Side

The whole cable length including the Omega connector is 30 c.

Note: This does not include the SmartProbe length.

Examples

The below Figure 4 and 5 illustrate end product examples



Figure 5 SmartProbe with 4 wire RTD



Figure 4 SmartProbe with 3 wire RTD



Figure 3 SmartProbe