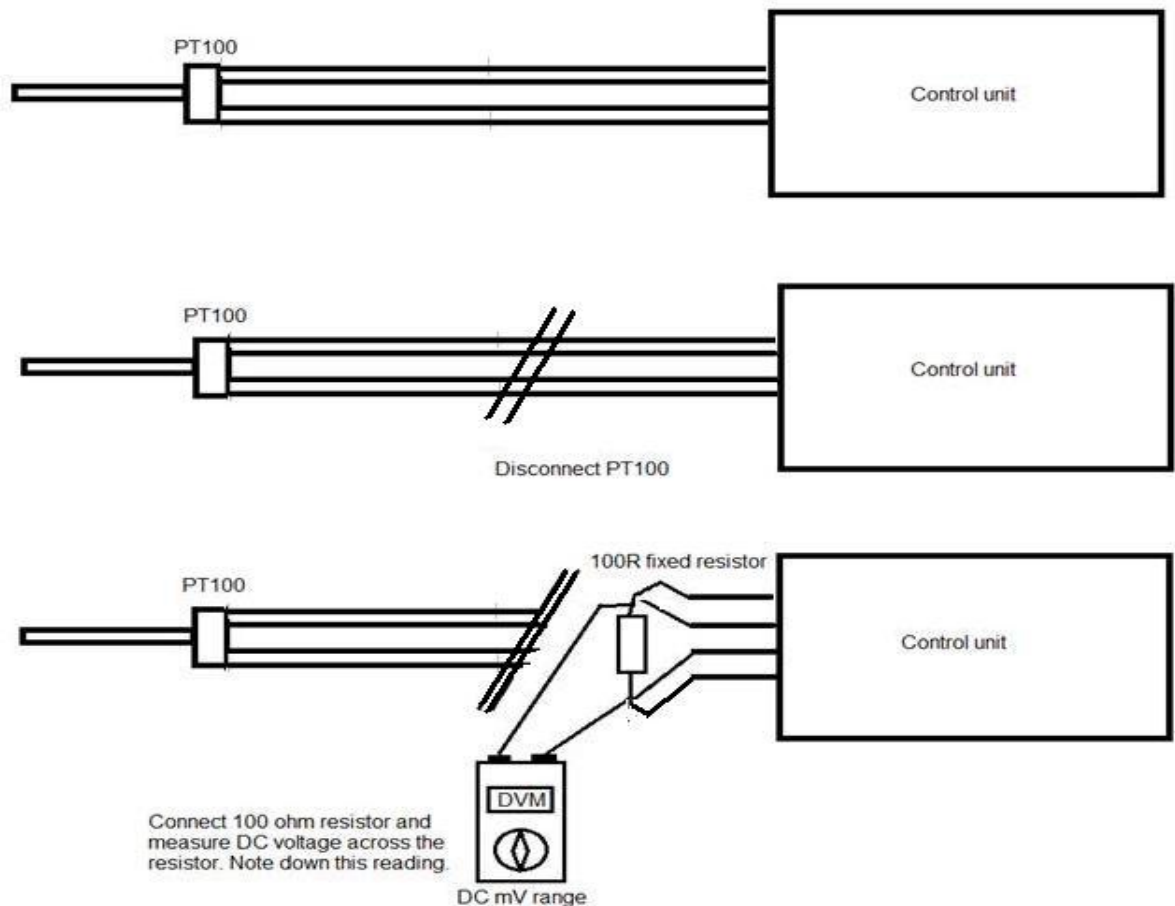


AMELEC ADM221X-4W RTD (PT100) Splitters –

4-Wire Field Test to be carried out during site surveys – (issue1: 04. 18)

- 1) Measure the mV signal directly across the two resistance sense input terminals of the existing four-wire input temperature controller, with all existing wiring still in place. Record this mV reading + the actual Temperature level being displayed at this moment.
- 2) Now disconnect all four input two wires from the controller and terminate a 100Ω resistor across the two Resistance Sense input terminals, with an additional Link from each side of this resistor to the corresponding additional Red or White wire input terminal. Measure and record this new mV reading directly across the 100Ω resistor, as shown below;



3) $\text{mV} / \Omega = \text{Current (mA)}$, so the results from steps 1 & 2 above should equal the same value for the constant current source being generated by the controller if all is correct. Some ref points for your actual temp calculations in step 1; $0^{\circ}\text{C}=100\Omega$, $50^{\circ}\text{C}=119.4\Omega$, $75^{\circ}\text{C}=129\Omega$, $100^{\circ}\text{C}=138.5\Omega$, $125^{\circ}\text{C}=148\Omega$, $140^{\circ}\text{C}=153.57\Omega$, $150^{\circ}\text{C}=157.3\Omega$, $160^{\circ}\text{C}=161\Omega$, $170^{\circ}\text{C}=164.76\Omega$, $180^{\circ}\text{C}=168.46\Omega$, $190^{\circ}\text{C}=172.16\Omega$, $200^{\circ}\text{C}=175.84\Omega$