

How to check whether the problem is in the controller, probe or heater

1. Probe

Compare the reading with another known-good probe or a reliable thermometer. If there are several inputs, swap the probes. A fault that moves with the probe usually indicates a problem with the probe or its cable.

2. Heater

If the controller indicates that heating should be active but the temperature does not rise, check the heater itself, power cable, plugs, sockets and fuses. A loose or burnt connection may carry a small current with no load but fail only when high power is drawn.

3. Controller

If the probe is good, the heater is good, the connections are correct and the output still does not behave according to the state shown by the controller, only then suspect the controller power stage. Do not take measurements inside an open live device unless you have the appropriate qualifications.