

TEMPERATURE CONTROLS PTY LTD

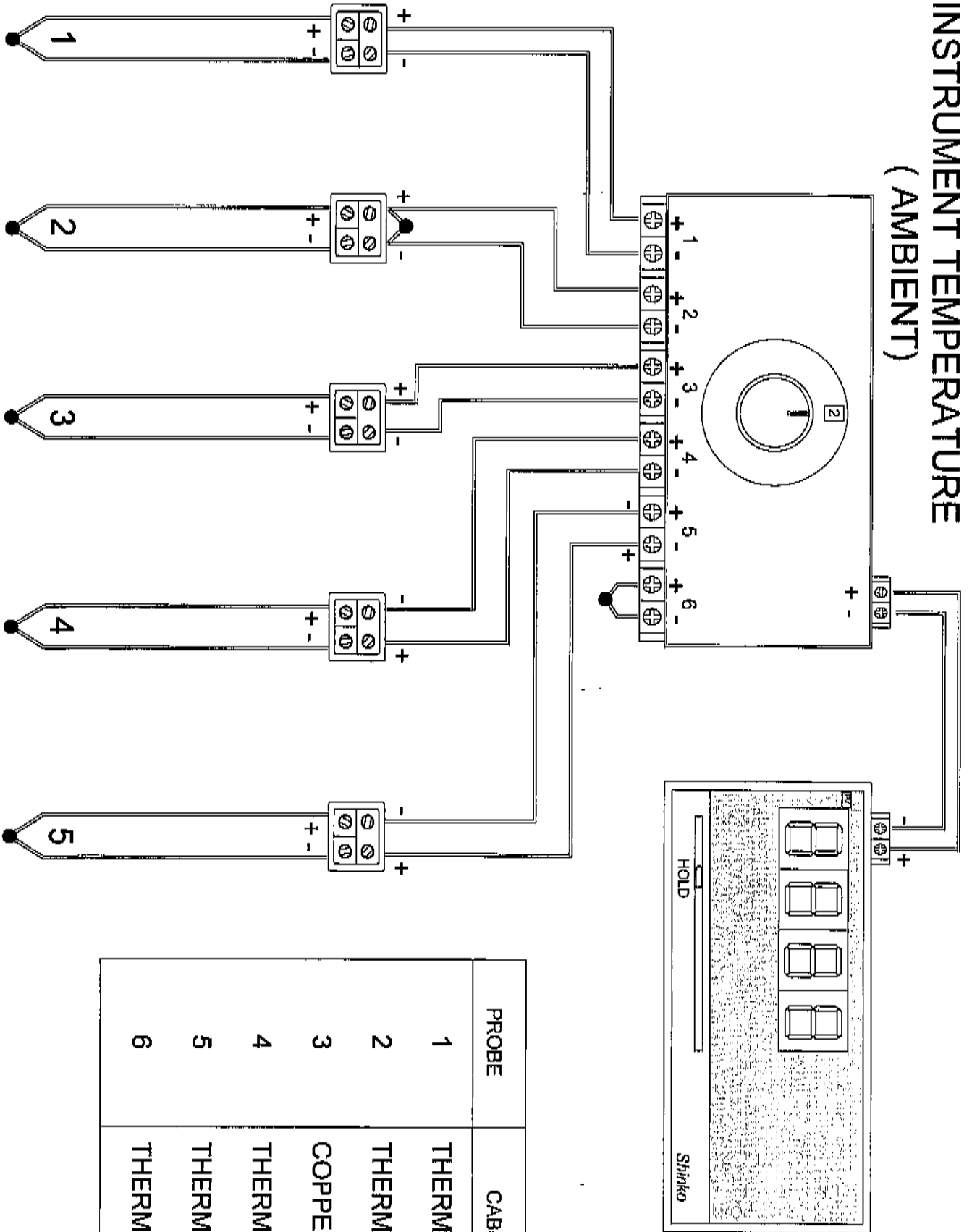
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THERMOCOUPLES•RTD SENSORS•THERMOWELLS•EXTENSION CABLES•LIQUID LEVEL SWITCHES

Thermocouple Cold Junction Compensation Common mistakes

<u>No.</u>	<u>Type K</u>	<u>Problem</u>	<u>Symptom</u>
1	Type K	normal	Reads accurately
2	Type K	Short in ceramic block/pot	Reads EMF in lead wires ie temperature of block - this gives a wrong signal to the controller for more heat
3	Type K	Copper wires	No EMF generated in lead wires, reads uncompensated temperature at block/pot temperature will change with changes in ambient.
4	Type K	Reverse polarity	Reads negative temperature, instrument is showing open circuit this is because the temperature generated is below the range of the instrument, instrument will read a negative value when the temperature is within the range of the instrument.
5	Type K	Double reverse polarity	Thermocouple is correct, the wires from the thermocouple are reversed, the wires to the instrument are also reversed resulting in a lower than normal reading.
6	Type K	Short circuit instrument	Instrument reads ambient

INSTRUMENT TEMPERATURE (AMBIENT)



HOT JUNCTION TEMPERATURE

PROBE	CABLE TYPE
1	THERMOCOUPLE
2	THERMOCOUPLE
3	COPPER
4	THERMOCOUPLE
5	THERMOCOUPLE
6	THERMOCOUPLE

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