

Ice Point Reference



The K170 Ice Point Reference performs ice point referencing for up to 75 thermocouples. The user wires external thermocouples to the unit's input terminals which are in turn connected to matching internal TC's that terminate to copper at the temperature of a thermoelectrically produced ice-water mixture. Thermocouple grade copper wire is taken from ice to MIL style connectors for output. Individual pass thru shield connections can also be provided.



High stability Ice Point Reference Equipment to get the highest accuracy possible from your thermocouples

The Kaye Ice Point references offer the ultimate in accuracy in automatic referencing. Used in applications ranging from precision calibration work to routine production testing, the units provide zero long term drift maintaining reference temperature at 0°C.

Three models, K140, K150 and K170, provide ice point references for multiple sensors.

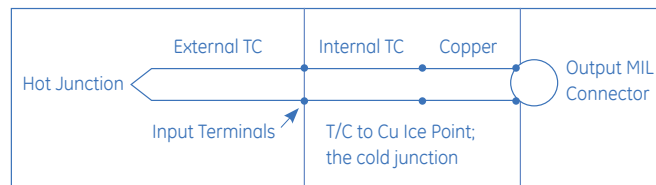
Ice Point Reference with External Calibration Wells

The K140 ice point reference, provides 4 calibration wells which accept a number of thermocouples depending on diameter-up to 16 type T, for example.

Ice Point Reference with Built-in Thermocouples

For applications where frequent connections are made or when calibrating temperature instruments, the K150 or K170 is convenient. The models have built-in thermocouples connected to matching material posts. The K150 provides references for 2, 4, 6, or 8 sensors. The K-170 Unit provides accurate simultaneous reference for up to 75 thermocouples.

The K170 models with 6 to 75 channels are rack mounted and with matching material terminal strip inputs and Military Standard connectors for outputs-includes mating connectors with wiring diagrams. Shielding can be provided for input and output terminals.



Thermocouple circuit of the K170 with external T/C wire connected to input terminals.

Ice Point Reference Specifications

Reference Temperature 0°C

Long Term Drift None

Stability ±0.02°C typ.
±0.05°C guar.

Total Instrument Error ±0.05°C max.

Number of Channels Up to 75

Power 115V AC, 60Hz or
230V AC, 50Hz

Dimensions 483mm W x 273mm D
(19"W x 10.75"D)

Height-See table below.

Ch	Non-Shielded	T/C Shielded
6	178mm (7")	N/A
12	178mm (7")	N/A
24	178mm (7")	178mm (7")
36	178mm (7")	311mm (12.25")
50	311mm (12.25")	311mm (12.25")
75	311mm (12.25")	400mm (15.75")

Ice Point Reference Specifications

	K140-4	K150	K170
Reference Temperature	0°C	0°C	0°C
Ambient Operating Range	5 to 40°C	5 to 40°C	5 to 40°C
Long Term Drift	None	None	None
Stability	0.01°C typ. 0.025°C guar.	0.02°C typ. 0.05°C guar.	0.02°C typ. 0.05°C guar.
Total Instrument Error*	0.02°C typ. 0.05°C max.	0.05°C max.	0.05°C max.
Number of Channels	4 Wells	Up to 8	Up to 75
Power	115VAC, 60Hz or 230VAC, 50Hz	115VAC, 60Hz or 230VAC, 50Hz	115VAC, 60Hz or 230VAC, 50Hz
Dimensions	6.4"W x 13.5"D x 10.6"H (162W x 343D x 270mmH)	6.4"W x 13.5"D x 11.0"H (162W x 343D x 279mmH)	19"W x 10.75"D (483W x 273mmD)
			Height-for K170
			<i>Ch Non-Shielded T/C Shielded</i>
			6 178mm (7") 178mm (7")
			12 178mm (7") 178mm (7")
			24 178mm (7") 178mm (7")
			36 178mm (7") 311mm (12.25")
			50 311mm (12.25") 311mm (12.25")
			75 311mm (12.25") 400mm (15.75")



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