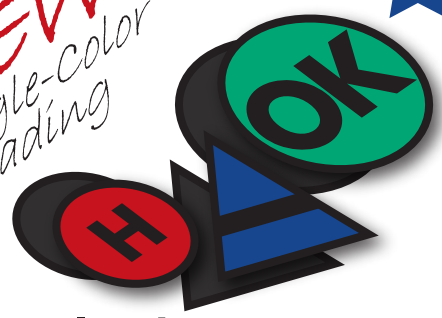# LCR Hallcrest

NEW! *Single-Color Reading*

Next Generation
IN DIGITAL LIQUID CRYSTAL THERMOMETRY

Digitemp®SC
THERMOMETERS

Single Color Thermometers & Temperature Indicators

Traditional Digitemp liquid crystal thermometers indicate temperature by running sequentially through the color spectrum to indicate current temperature.

Digitemp SC thermometers indicate the current temperature with one color. No Interpretation Necessary!! Same features and benefits of traditional liquid crystal thermometers in an easy to read format that offers limitless custom possibilities!

Single color change liquid crystal is digital in nature and works like an on off switch, allowing the technology to be applied to custom graphics. Symbols, numbers, letters, and images can be made to appear or disappear when an activation point is reached. Triggering points can be mixed to create indicators that monitor a temperature range, High, Low and OK can be combined in one indicator.

- **Accurate to ± 1⁰C**
- **Easy to Read**
- **Continuous Temperature Display**
- **No Batteries**
- **Low Cost**
- **0°C to 75°C Temperature Range**
- **Self Adhesive**

2114 Room Thermometer

°F	62	66	70	73	77	81	84	88
°C	17	19	21	23	25	27	29	31

Specifications:
Size: 3.5" x 0.5" (89mm x 12.5mm)
Type: Horizontal, self adhesive.
Scale: °F and °C

4557

°F	32	41	50	59	68	77	86
°C	0	5	10	15	20	25	30

Specifications:
Size: 0.5" x 1.77" (12.5mm x 45mm)
Type: Horizontal, self adhesive.
Scale: °F and °C

4558

°F	86	95	104	113	122	131	140
°C	30	35	40	45	50	55	60

Specifications:
Size: 0.5" x 1.77" (12.5mm x 45mm)
Type: Horizontal, self adhesive.
Scale: °F and °C
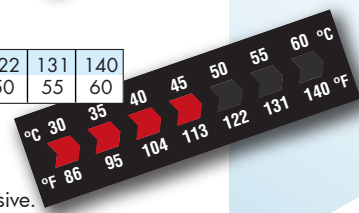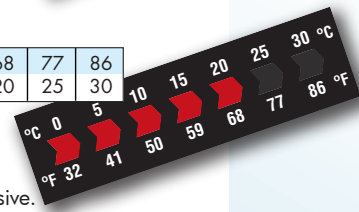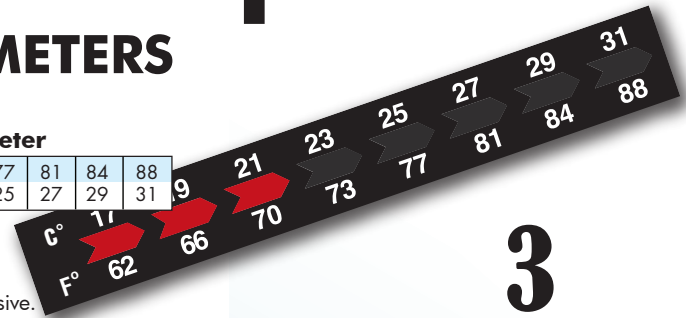
3 READY-MADE Thermometers

or

CUSTOM Solutions

indicate **COLD**
From THIS → To THIS

indicate **CORRECT**
From THIS → To THIS

indicate **HOT**
From THIS → To THIS

In *Addition*

We can *customize* **your** product to work for *specific* ideas

All shapes and sizes.

No ideas off limits.

Really.

![LCR Hallcrest logo]

Digi – Temp® SC
Reversible Thermochromic Single Color Liquid Crystal Thermometers

Reversible Temperature Indicators

What They Are:

These self-adhesive labels consist of a series of temperature-sensitive elements containing microencapsulated **Thermochromic Liquid Crystal** TLC coated on a black backing. Each element changes color distinctly as its rated temperature is reached and maintained. The color changes are reversible meaning that the reflected color will turn black as the temperature is reversed. Thermochromic Single Color Change (SC) Labels can be ascending (SCA) or descending (SCB) that is change from black to a color as temperature increases or black to a color as the temperature decreases.

How the Digi - Temp SC labels work:

The temperature-sensitive elements contain TLC molecules that are very sensitive to temperature and change their arrangement in response to changes in temperature. This change in molecular geometry affects the way in which the TLC interacts with light, resulting in a change in the color of each temperature event.

When the rated temperature of an indicator is reached, the TLC changes its form from reflecting (color) to non-reflecting (black) or vice versa. This causes the color-change at the temperature event to occur.

Label Construction:

Component:	Thickness
Polyester film	>75, 125, 175μ
	(Depending on label type)
Graphic Print	10-20μ
Liquid Crystal Ink	10-50μ
Black Backing	10-20μ
Adhesive & carrier	150-180μ
Release Liner	75μ
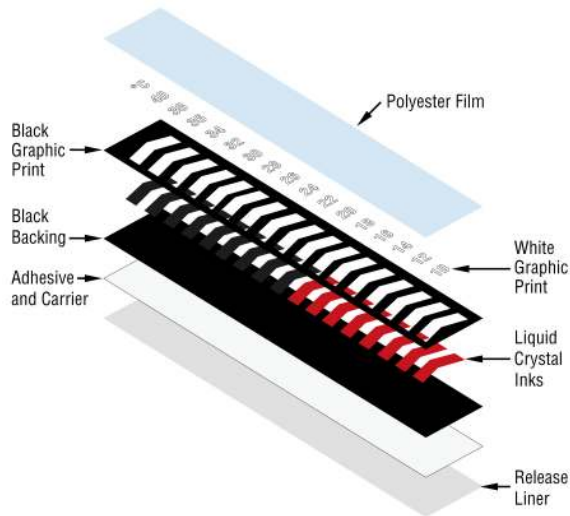
Above values are general guides using the standard products as a representative example.

Adhesive Tape	Double-coated Adhesive Tape
Covering Film	Polyester 5 mil stock
Color Change Material	Non-toxic mixture of liquid crystal esters
Accuracy	±1°C
Guarantee	12 months from invoice date when stored at room temperature (i.e. 21ºC (70ºF) & 50% relative humidity).

Reading Digi-Temp SC Labels:

The correct temperature is indicated by the event on the TLC thermometer that turns color.
…For SCAs the highest event that turns color indicates the correct temperature…For SCBs the lowest event that turns color indicates the correct temperature…

Custom Products:

In addition to the standard **Digi-Temp SC** labels , which cover the temperature range of 0 -75°C, a full custom manufacturing service is available and products can be manufactured to meet customers' precise requirements of, for example, size, shape, color, temperature range, number of temperature elements, and/or graphic printing (custom logos). Please ask for details.