HOTLOK®

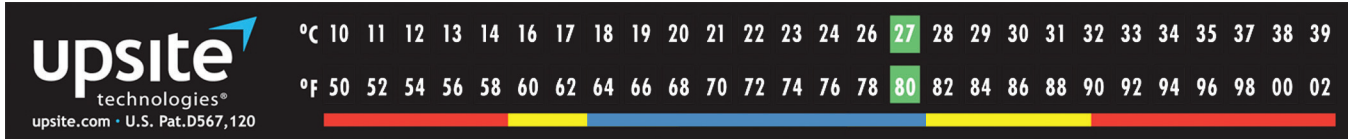## HotLok® Temperature Strip

Part Number
10009 & 10125

Applications

The HotLok Temperature Strip is a liquid crystal thermometer that accurately monitors the air-intake temperature of IT equipment. The Temperature Strip indicates if the air temperature is within acceptable limits based on standards established by the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) and equipment manufacturers.

The HotLok Temperature Strip (Part No. 10125) is mounted to a plastic airflow platform for accurate measurements. The airflow platform can be mounted to a metallic cabinet using the magnetic buttons on the back side--simply stick it on. For the best accuracy, the temperature strip should be placed in a location that doesn't have stray airflow or doesn't represent the intake temperatures desired.

Reading the Temperature Strip

The liquid crystal material in the HotLok Temperature Strip shows temperatures in ranges of green, brown, and blue. The actual temperature is indicated when the liquid crystal material is green. If green is not visible on the Temperature Strip, the actual temperature will be the number between the brown and blue colors.

The colored range indicators denote the following:

- Blue: Optimal Operating Range based on recommendations as updated in ASHRAE's 2008 Environmental Guidelines for Datacom Equipment

- Yellow: Acceptable Operating Range based on equipment manufacturers' recommendations for Class 1 IT equipment

- Red: Outside acceptable operating range—indicates a definite hotspot above 90°F (32°C) or potential for condensation below 59°F (15°C), either of which may result in equipment failure

Features

- Range in both Celsius and Fahrenheit temperature scales

- Fahrenheit Scale: 50°F to 102°F in increments of 2°F

- Celsius Scale: 10°C to 39°C in increments of 1°C

- Accurate to within +/- 1°C.

- Directly traceable to a Certificate of Conformance

- Calibrated in accordance with the American Society for Testing and Materials (ASTM) Standard E 1061-94 using equipment

- Traceable to the National Institute of Standards and Technology (NIST).

- HotLok Temperature Strip (Part No. 10125) attaches to a metal cabinet using the magnetic buttons on the backside of the airflow platform and can be mounted on any ferrous metal surface such as server intake air grills or highly perforated doors

- HotLok Temperature Strip (Part No. 10009) can be used without the mounting base and applied directly to an area using the pre-applied adhesive

- The liquid crystal sensor/display does not require any batteries or connectivity

Benefits

- Identifies hot and cold spots within minutes of application and at a glance thereafter

- Improves uptime by early identification of trouble areas

- Color-code based on ASHRAE standards indicates potential hot spots in a glance

- Supports airflow management practices resulting in improved capacity and reduced operating expenses

- Is attached using non-permanent mounting methods for reuse in other locations

Specifications

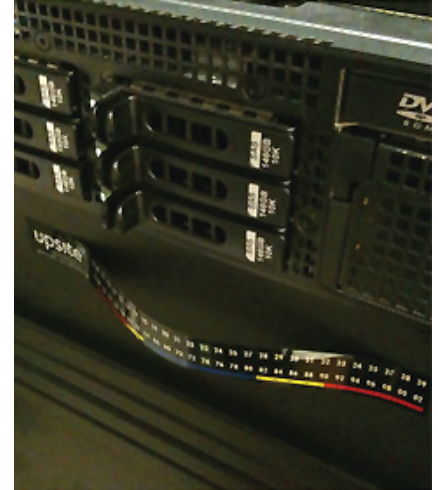| Dimensions	Inches	Millimeters
Part No. 10009 - Overall size (length x width)	10" x 1"	254 x 25.4mm
Part No. 10125 - Overall size (length x width x height)	10.6" x 1.1 x 0.4"	269 x 28 x 10mm

Instructions for Use

HotLok® Temperature Strips most accurately show IT air intake temperatures when placed as close to IT equipment air intakes as possible. Place them in any location desired, but not in a location that will impede airflow to the IT equipment. IT equipment intake temperatures will be most consistent if airflow management (AFM) best practices are followed. The most important AFM practices that relate to cabinets are: all open spaces in cabinets filled with blanking panels, all spaces between mounting rails and cabinet sides sealed and all spaces under the cabinet are sealed.

- • Image 1 - Part No. 10009

- The highest IT equipment intake air temperatures are often found at the tops of cabinets and adjacent to open spaces in cabinets. Occasionally high intake air temperatures are also found at the bottom of cabinets when hot exhaust air is being drawn under the cabinet. Placing a HotLok Temperature Strip in these problematic areas will help to identify the highest intake air temperatures.

- Cold spots are most often found at the bottom of cabinets. If conditioned supply air temperatures are colder than the lower limit for intake air temperatures then cold spots are likely. Intake temperatures at the bottom of cabinets should be checked for cold spots.

- To get the most accurate reading for Part No. 10009, peel the paper to reveal the adhesive on the ends of the temperature strip. Apply the strip so it bends slightly with the middle section not touching any surface. (See Image 1) For Part No. 10125, adhere the magnetized airflow platform(s) to one or more locations on the cabinet. (See Image 2)

- The box around temperature number on the HotLok® Temperature Strip will turn green, brown, and blue. The actual temperature is indicated when the liquid crystal material is green. If green is not visible on the strip, the actual temperature will be the number between the brown and blue.

- Any intake air temperature greater than 27° C or 80.6° F is considered a hot spot. Steps should be taken to provide more conditioned air to this location to increase IT equipment reliability.

- • Image 2 - Part No. 10125

- Any intake air temperature lower than 18° C or 64° F is considered a cold spot. Steps should be taken to increase air intake temperatures to improve equipment reliability.

  Part No. 10009 - Package of 10 Strips
  Part No. 10125 - Carton of 10 Strips on Magnetic Platforms

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