# Thermal Map Sensor (CTMS / CTHMS)

Pre-wired for easy installation on your cabinet. Placed at the top, middle and bottom - front and rear of the cabinet. This configuration of sensors gives you monitoring of the air intake and exhaust temperatures of your cabinet, and the temperature differential from the front to the rear.

Monitor temperature differentials in your cabinet

Thermal Map sensors are compatible with all sensorProbe+ base units, and are available in temperature only (6x temp), or dual temperature and humidity (6x temp, 2x hum). Sensors are provided with double sided VHB tape for mounting. Optional magnetic re-positionable mounting kit is available.

Application Diagram

Thermal map sensors connect to any AKCP sensorProbe+ base units. Extendable up to a maximum of 18 meters cable length, you can monitor multiple cabinets from a single IP address. Below example illustrates an SPX+ with 12 sensor ports, this is the maximum number of thermal maps that can be connected to a single SPX+.

18m Max

18m Max
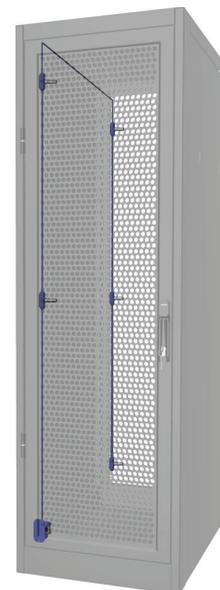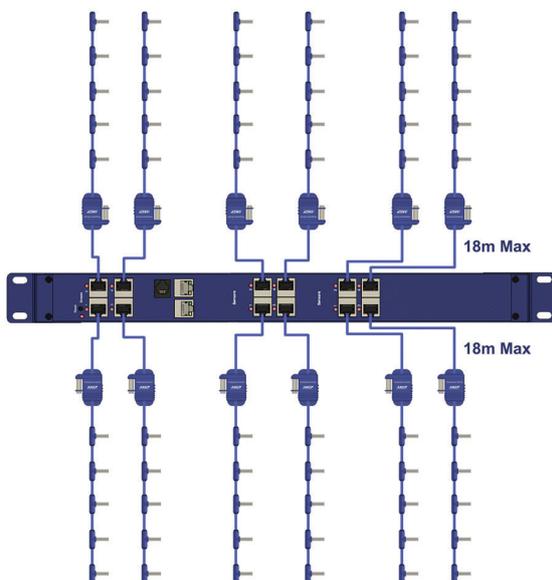
Maximum of 12 Thermal Maps connected to an SPX+

Thermal Map installed on cabinet

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Example of AKCP Pro Server rack map view, with thermal map sensor and front to rear temperature differentials
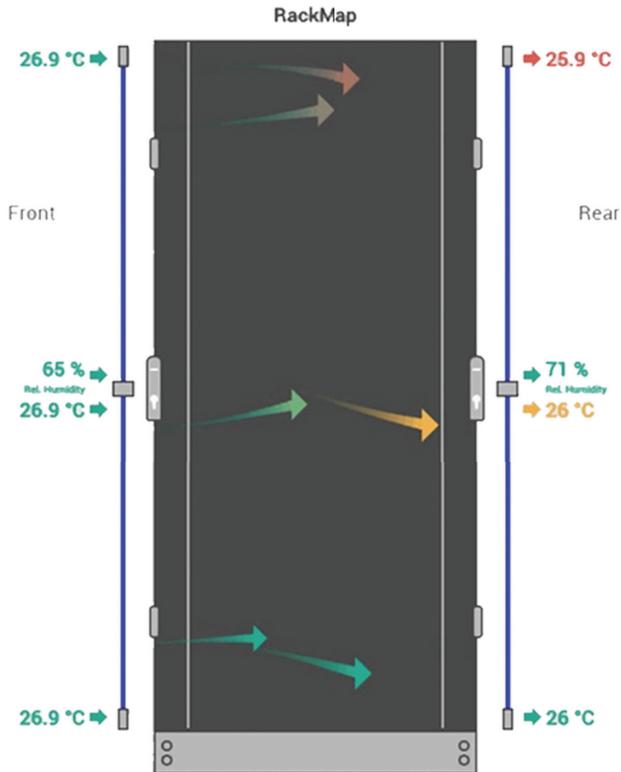
Thermal maps can be added to rack map views in AKCPro Server. Animated arrows show the temperature differential from the front to rear of the cabinet as well as the individual sensor values at the front, rear, top, middle and bottom of the cabinet. Find out more about the great features of this software in the AKCPro Server section of the catalogue.

CTMS / CTHMS - Technical Specifications

Dual Temperature	
Measurement Range	-40°C to +75°C -40°F to +167°F
Measurement Resolution	0.1°C increments 0.2°F increments
Measurement Accuracy	Maximum ±0.3 at -40ºC, minimum ±0.3 at +25ºC and ±0.3 at +75ºC Maximum ±0.6 at -40ºF, minimum ±0.6 at +25ºC and ±0.6 at +167ºF
Dual Humidity	
Measurement range	0 to 100% Relative humidity
Resolution	1%RH increments, 0.01%RH sensor reading
Accuracy at	25°C ±2%RH
Single Temperature	
Measurement Range	-40°C to +75°C -40°F to +167°F
Measurement Resolution	0.1ºC increments 0.2ºF increments
Measurement Accuracy	±0.5°C accuracy from -10°C to +75°C ±0.9°F accuracy from +14°F to +167°F
Interface	
Communications cable	RJ-45 jack to sensor using UTP CAT5e/6 cable
Power source	Powered by the sensorProbe+ familiy units. No additional power needed
Power Consumption	Typical 75 mWatt, 15 mA
Maximum Cable Length	The CTHMS sensor can be extended from the RJ-45 Intelligent Sensor ports on the base units up to 60 feet, or 18 meters using standard CAT5/6 LAN cable
	sensorProbe+ units auto detects the presence of the Cabinet Thermal Map Sensor
Dimension	75 x 55 x 27 mm
Mounting	Desktop, Wallmount, Din rail, Magnetic
Components	Manufactured using highly integrated, low power surface mount technology to ensure long term reliability.
Operating Environment	Temperature : Min. -35° C – Max.80° C Humidity: Min. 20% – Max. 80% (Non-Condensing)
Sensor count	CTMS : 9 CTHMS : 11

CTMS / CTHMS - Technical Drawing

55mm

Thermal Map Sensor

AKCP
Power.Sensor.Security

42mm

9.9mm

44mm

28.2mm

75mm

55mm

45mm

14.3mm

27mm

To Sensor Port
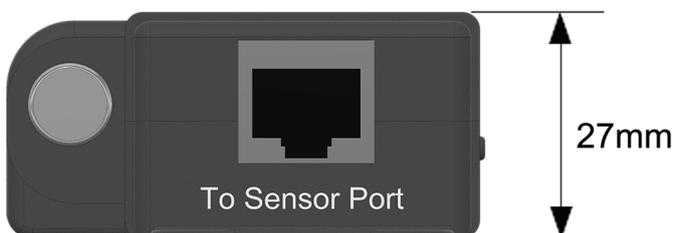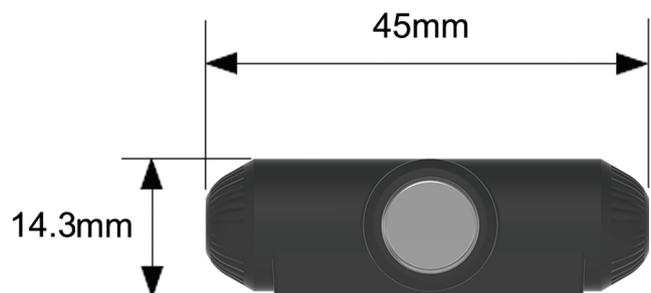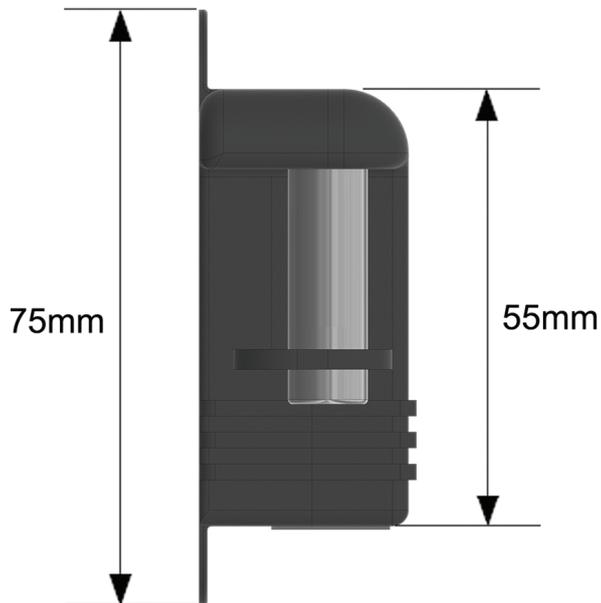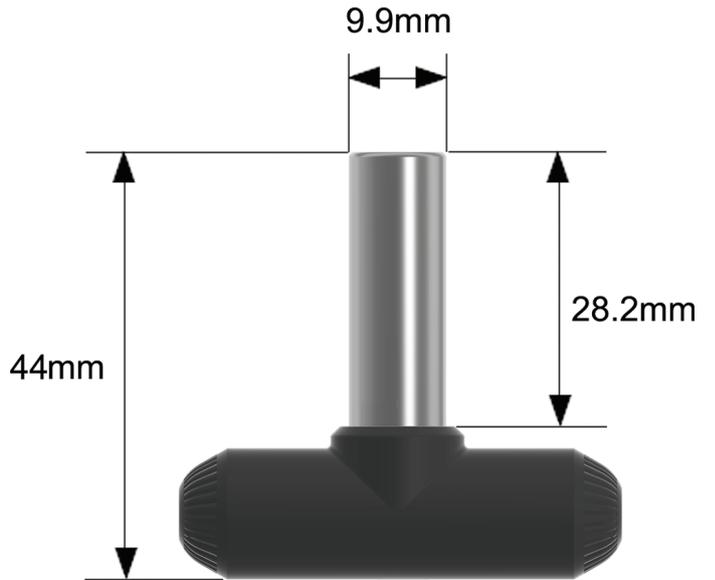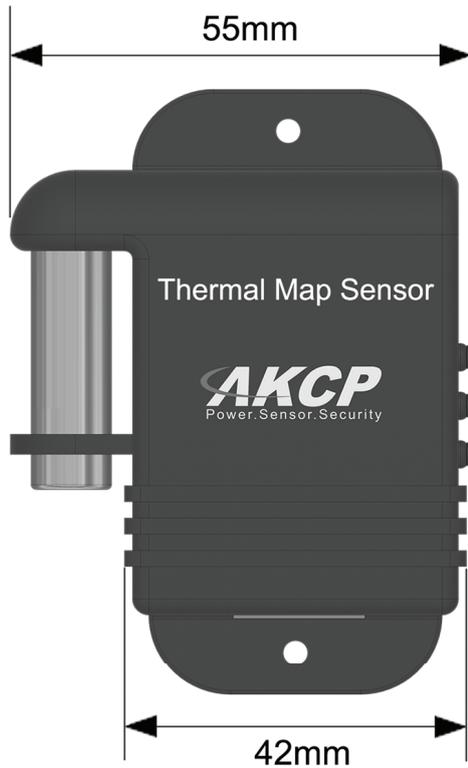
CTMS / CTHMS - Technical Drawing

Cabinet Thermal Map Sensor string

2m

1m

1m

1m

1m

Thermal Mal Sensor

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