A54-25 Temperature and Humidity Sensor

The MAXMAC A54-25 Temperature and Humidity Sensor is a compact environmental monitoring device specially designed for HVAC applications. It is developed for reliable temperature and humidity measurement in ventilation systems, fresh air units, air handling equipment, and indoor environmental control applications.

Built for modern HVAC environments, this sensor uses CMOSens® sensing technology to provide stable and accurate temperature and humidity measurement performance. With RS485 communication, compact dimensions, and low-power design, it is easy to integrate into commercial and industrial environmental monitoring systems.

With its flame-retardant housing, robust structure, and dependable sensing capability, the MAXMAC A54-25 Temperature and Humidity Sensor is an ideal solution for HVAC manufacturers, system integrators, and environmental control applications that require consistent temperature and humidity monitoring.

Key benefits:

- Designed specifically for HVAC and environmental monitoring applications
- Integrated temperature and humidity detection
- RS485 communication for reliable system integration
- Compact size for easy installation
- Low power consumption
- Flame-retardant PC+ABS housing
- Stable and accurate sensing performance
- Suitable for commercial and industrial monitoring systems

Typical applications:

- HVAC systems
- Fresh air systems
- Air handling units (AHU)
- Ventilation control systems
- Commercial building environmental monitoring
- Smart building monitoring systems
- Industrial environmental control systems
- Public building air quality and comfort management

Standard Specification

Item	Description
Product name	A54-25 Temperature and Humidity Sensor
Model	A5425
Functions	Temperature + Humidity monitoring
Communication	RS485
Dimensions	66.4 × 51.4 × 19 mm
Housing material	PC+ABS, V0 flame-retardant
Operating voltage	DC12–DC24V
Operating current	Average: 10 mA @ 12.0 VDC, Peak: <20 mA (10 ms), at room temperature
Standby power consumption	≤ 0.2 W
Power consumption	≤ 0.5 W
Temperature sensing principle	CMOSens®
Temperature measuring range	-20°C to 85°C
Temperature resolution	0.1°C
Temperature accuracy	±2°C
Humidity sensing principle	CMOSens®
Humidity measuring range	1–99%RH
Humidity resolution	0.1%RH
Humidity accuracy	±5%RH
Interface	4-pin socket
Communication interface	RS485 protocol, 4-pin (+ / A+ / B- / GND)
Physical connector	GH1.25-4P locking connector
Operating environment	-10°C to 50°C, 0–95%RH, non-condensing
Storage environment	-20°C to 65°C, 0–99%RH, non-condensing

Note:

The matching GH1.25-4P locking terminal cable should be prepared by the user for connection.

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