

DB510-GS Wall Mounted Indoor Humidity & Temperature Transmitter

Wall-mounted humidity/temperature transmitter for data centers, cleanrooms, and indoor environmental monitoring.

Overview

The DABECO DB510-GS is a sturdy, reliable wall-mounted sensor for measuring air relative humidity and temperature in exacting interiors — data centers, industrial buildings, hospitals, and cleanrooms — or for monitoring indoor environmental quality in any space where health security matters. A state-of-the-art capacitive polymer sensor ensures excellent long-term calibration stability and inertia against water and condensation.

Operating Principle

A capacitive polymer humidity sensor measures relative humidity while a paired temperature sensor tracks ambient temperature, with both analog (4-20 mA) and digital RS485 Modbus RTU outputs available for integration into building management or monitoring systems.

Key Features

- Capacitive polymer humidity sensing element
- Humidity range 0-100% RH; temperature -40 to +120°C
- Analog 4-20 mA or digital RS485 Modbus RTU output
- Dual-line LCD display (optional)
- Long-term calibration stability with resistance to water and condensation
- Wall-mounted enclosure for easy indoor installation

Benefits

- Stable capacitive sensing reduces drift and recalibration needs
- Dual output options (analog/digital) simplify integration with existing systems
- Condensation-resistant design suited to humid or variable indoor environments
- Wide temperature range supports demanding industrial and cleanroom settings

Typical Applications

Data Centers & Server Rooms, Hospitals & Cleanrooms, Industrial Buildings, Home & Office Climate Monitoring, Greenhouse Environments, Building Automation & HVAC

Technical Specifications

Measurement

Humidity Range	0-100% RH
Humidity Accuracy	±2.0% RH (0-90% RH @ +25°C)
Temperature Range	-40 to +120°C
Temperature Accuracy	±0.2°C (@ +25°C)

Outputs

Analog	4-20 mA
Digital	RS485, Standard Modbus RTU

Performance

Response Time (Humidity)	≤8s
Response Time (Temperature)	>2s

Power & Display

Supply	9-36 VDC
Consumption	Lowest 1.2 W
Display	Dual-line LCD / optional (without)

