

DB4320 4-20mA Output Duct Humidity & Temperature Transmitter for HVAC

4-20mA duct-mount humidity/temperature transmitter for HVAC and climate chambers.

Overview

The DABECO DB4320 is designed for measuring air relative humidity and temperature in HVAC systems and climate chambers. Its high accuracy, excellent measurement stability, and reliable operation make it an ideal choice for applications where accuracy is of the utmost importance. It is widely used across industrial sites, telecommunication base stations, offices, supermarkets, production workshops, warehouses, and construction sites, with a direct current 4-20mA output for connecting directly to secondary instruments or acquisition cards.

Operating Principle

A humidity and temperature sensing element mounted via duct-insert installation measures relative humidity and ambient temperature, converting readings to a 4-20mA current loop signal for direct connection to secondary instruments or data acquisition cards.

Key Features

- Duct-insert installation for direct in-airflow measurement
- Humidity range 0-100% RH; temperature -20 to 80°C (customizable)
- 4-20mA current loop output for direct instrument/DAQ connection
- High accuracy and excellent long-term measurement stability
- Wide operating temperature range (-20 to 70°C) and humidity tolerance (≤94% RH)

Benefits

- Standard 4-20mA loop integrates easily with existing industrial control systems
- Duct-insert design suits direct HVAC airflow monitoring
- Customizable measurement range adapts to specific application needs
- Reliable performance across demanding industrial and commercial settings

Typical Applications

HVAC Systems, Climate Chambers, Industrial Sites, Telecommunication Base Stations, Offices & Supermarkets, Production Workshops & Warehouses, Construction Sites

Technical Specifications

Measurement

Humidity Range	0-100% RH
Humidity Accuracy	±2% RH (20-80% RH @ 25°C)
Temperature Range	-20 to 80°C (customizable)
Temperature Accuracy	±0.3°C (20-80% RH @ 25°C)

Output

Signal	Analog 4-20mA
Output Load	250Ω ≤ R ≤ 750Ω

Operating Conditions

Operating Temperature	-20°C to 70°C
Operating Humidity	≤94% RH

Power & Installation

Supply	12-24 VDC
Consumption	≤2.5 W
Installation Method	Duct-insert

