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SENSORS AND FLUID MANAGEMENT SYSTEMS
AMETEK®



Humidity Sensor

Overview

AMETEK has now developed the most accurate and smartest humidity sensor available for aircraft Environmental Control Systems (ECS). Qualification is completed for a transport jet application. The humidity sensor contains the sensing element and the electronics to convert the water concentration in air to a standard CANBUS output. The humidity sensor uses a capacitance technique with specialized signal processing to measure water content. It is intended for an air ducting installation where humidified air is carried to seating areas.

Time response is a function of airflow and typically is less than six seconds. The CANBUS output has labels of duct humidity and temperature and Built- In-Test status. Internal Built-In-Test (IBIT) capability indicates detected failures both with sensor and its internal processing circuits and microcontroller. The humidity sensor has passed tests in accordance with DO160, substantiating all the requirements for its location on transport aircraft.



Specifications

Range:	10 to 90% humidity
Accuracy:	± 4% from 0°C to 50°C humidity, 1.5°C from 0°C to 40°C
Time Response:	<40 seconds @ low flows, <10 seconds @ 45 feet/second
Input:	18 to 32 VDC
Current:	32 milliamp, nominal
Output:	CANBUS label outputs for humidity, temperature, and BIT
Operating Temp.:	-55°C to +85°C (-40°F to 158°F)
Weight:	< 0.44 lbs.

Features

- *Provides both humidity and temperature*
- *Provides both humidity and temperature*
- *The first modern, digital humidity sensor*
- *Standard D38999 electrical connector CANBUS output. Internal Built-In-Test*

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