DIGITEN DHC-101

DIGITEN Digital Humidity Controller DHC-101 User Manual

Model: DHC-101

1. Introduction

The DIGITEN DHC-101 Digital Humidity Controller is a pre-wired, simple-stage electronic humidistat designed for precise humidity management. It is suitable for a wide range of applications including dehumidifiers, humidifiers, reptile enclosures, greenhouses, exhaust fans, and fermentation processes. Featuring a large, lighted LCD screen for easy readability and a user-friendly interface, this plug-and-play device ensures accurate and stable humidity control.

Image: The DIGITEN DHC-101 controller is versatile, suitable for applications such as homebrewing, seed germination, cheese making, and cigar storage, ensuring optimal humidity levels.

2. Safety Information

- Ensure the power supply matches the controller's specifications (100-240Vac).
- Do not immerse the controller or sensor in water or expose to excessive moisture.
- Keep out of reach of children.
- Do not disassemble or modify the device. Refer all servicing to qualified personnel.
- Always unplug the device before cleaning or performing maintenance.
- The case is designed with fireproof ABS material, but avoid exposing it to open flames or extreme heat.

3. Package Contents

Verify that all items are present in the package:

- 1 x DHC-101 Humidity Controller
- 1 x Humidity Sensor
- 1 x User Manual

Image: The DIGITEN DHC-101 Humidity Controller is packaged securely in a brown and black box.

4. Product Overview

The DHC-101 controller features a main unit with an integrated display and control buttons, a high-accuracy humidity sensor, and a pre-wired power plug for easy installation.

Image: The DIGITEN DHC-101 Digital Humidity Controller, showing the main unit, connected humidity sensor, and power plug.

Image: A clear front view of the DIGITEN DHC-101 controller, highlighting its LCD display and control buttons.

SPECIFICATION
Control Range: 5-99%
Humidity Resolution: 0.1%RH
Accuracy: ¡À 3%RH
Input Power: 100-240VAC, 50/60Hz
Output Power: Max. 10A, 100-240VAC
Humidity Output Load: 1100W@110V, 2200W@220V
Buzzer Alarm: High and Low Humidity Alarm
Sensor Length: 2m/6.5ft
Relay Contact Capacity: Humidity (10A 100-240VAC), Dehumidify (10A 100-240VAC)
Input Power Cable Length: 150cm/5ft
Output Power Cable Length: 18cm/7in

Image: The high-accuracy humidity sensor for the DHC-101 controller, featuring a 2-meter lead length.

Image: Detail of the pre-wired output plug, designed for connecting the controlled device to the DHC-101 controller.

5. Specifications

- **Control Range:** 5-99%RH
- **Humidity Resolution:** 0.1%RH
- **Accuracy:** ± 3%RH
- **Control Mode:** Humidify or Dehumidify
- **Input Power:** 100-240Vac, 50/60Hz
- **Humidity Control Output:** Max. 10A, 100-240VAC
- **Humidity Output Load:** 1100W@110V, 2200W@220V
- **Buzzer Alarm:** High and Low Humidity Alarm
- **Sensor Model:** MEAS HTG3500 series
- **Sensor Lead Length:** 2m (6ft)
- **Relay Contact Capacity:** Humidity (10A, 100-240VAC), Dehumidify (10A, 100-240VAC)

- **Input Power Cable Length:** 150cm (6ft)
- **Output Power Cable Length:** 18cm (7inch)
- **Material:** Acrylonitrile Butadiene Styrene (ABS)

6. Setup

Follow these steps for initial setup:

1. **Unpack:** Carefully remove the DHC-101 controller and its components from the packaging.
2. **Connect Sensor:** Plug the humidity sensor into the designated port on the controller. Ensure a secure connection.
3. **Position Sensor:** Place the humidity sensor in the environment where humidity needs to be monitored and controlled. Ensure it is not directly exposed to water or extreme temperatures.
4. **Connect Appliance:** Plug your humidifier or dehumidifier into the output socket of the DHC-101 controller.
5. **Power On:** Plug the DHC-101 controller's main power plug into a standard 100-240Vac electrical outlet. The LCD screen will illuminate.

7. Operating Instructions

The DHC-101 operates in either Humidify or Dehumidify mode based on your set parameters.

Setting Parameters:

Use the 'SET' button to enter programming mode and the up/down arrows to adjust values. Press 'SET' again to confirm and move to the next parameter.

Dehumidify Mode:

To activate dehumidification, set the RUN humidity value to be**higher** than the STOP humidity value. The LCD will display "MODE: DEHUMIDIFICATION".

- When the measured humidity is higher than the set RUN humidity, the dehumidification equipment will start operating.
- When the measured humidity reaches the set STOP humidity, the dehumidification equipment will stop operating.

Humidify Mode:

To activate humidification, set the RUN humidity value to be**lower** than the STOP humidity value. The LCD will display "MODE: HUMIDIFICATION".

- When the measured humidity is lower than the set RUN humidity, the humidification equipment will start operating.
- When the measured humidity reaches the set STOP humidity, the humidification equipment will stop operating.

Alarm Function:

The controller features a buzzer alarm for high and low humidity conditions. Refer to the detailed user manual included in the package for setting alarm thresholds.

8. Maintenance

- **Cleaning:** Wipe the controller and sensor with a soft, dry cloth. Do not use abrasive cleaners or solvents.

- **Sensor Care:** Keep the humidity sensor clean and free from dust or debris to ensure accurate readings. Avoid physical damage to the sensor.
- **Storage:** If storing the device for an extended period, disconnect it from power and store it in a cool, dry place.

9. Troubleshooting

Problem: Display is blank.
Solution: Ensure the controller is properly plugged into a live power outlet. Check the power cable for any damage.

Problem: Appliance not turning on/off as expected.
Solution: Verify that the RUN and STOP humidity settings are correctly configured for either humidification or dehumidification mode. Check if the appliance plugged into the controller is functioning correctly. Ensure the sensor is placed in an appropriate location and is not obstructed.

Problem: Humidity readings appear inaccurate.
Solution: Clean the humidity sensor to remove any dust or debris. Ensure the sensor is not exposed to direct airflow, extreme temperatures, or moisture that could affect readings. If issues persist, the sensor may need replacement.

Problem: Buzzer alarm sounds frequently.
Solution: Check the current humidity level against your set high and low alarm thresholds. Adjust the thresholds if necessary, or address the environmental conditions causing the humidity to exceed/fall below the set limits.

10. Warranty and Support

For warranty information and technical support, please refer to the contact details provided in the user manual included with your product or visit the official DIGITEN website. Keep your purchase receipt for warranty claims.