

DACS DHC101

Moisture Sensing and Drying Control Device

User Manual

DACS DHC101 is a PLC-based control device designed to automatically adjust the operating speed of the drying system by sensing the moisture content on fabric in textile machines. It is designed to provide energy savings and achieve optimum drying quality. The device processes data from the sensor and sends a 0–5 VDC analog control signal to the drying system.

1. Technical Specifications

- Supply Voltage: 220 VAC, 50/60 Hz
- Control Output: 0–5 VDC (It can be modified when creating the order)
- Control Type: PLC-based
- Application Area: Textile drying machines, stenter (fixing) machines

2. Device Dimensions

- Height: 7 cm
- Width: 13 cm
- Length: 22 cm

3. Front Panel and Terminal Connections

3.1. Power Input (Left Terminal)

- L: Phase line (220 VAC)
- N: Neutral line (220 VAC)

3.2. Sensor Input (Right Terminal)

- +: Sensor supply positive
- –: Sensor supply negative
- ⚠: The device must not be operated without connecting the sensor.

4. Installation Instructions

- Mount the device on a flat and vibration-free surface.
- Ambient temperature: 0 – 45 °C
- Ambient humidity: 20% – 85% (non-condensing)
- Do not expose the device to direct sunlight or high temperatures.
- Route cables away from strong magnetic fields and high-current lines.

5. Operating Principle

- The sensor measures the moisture content on the fabric and transmits the measured data to the device.
- The PLC processes the data and determines the drying speed.
- The device generates a 0–5 VDC control signal.
- The drying system automatically speeds up or slows down.
- Optimum drying is achieved and unnecessary energy consumption is prevented.

6. Safety Warnings

- Unauthorized persons must not open the device.
- Proper grounding must be ensured.
- Do not intervene with wet hands.
- Use appropriate fuses and a residual current device (RCD).

7. Warranty and Service

- This product is covered by the manufacturer's warranty.
- Interventions outside the scope of the warranty will void the warranty.

