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 > OMRON Thermac NEO Temperature Controller E5AN-HAA2HH01BF-FLKA User Manual

Omron E5AN-HAA2HH01BF-FLKA

OMRON Thermac NEO Temperature Controller User Manual

Model: E5AN-HAA2HH01BF-FLKA
Brand: Omron

1. PRODUCT OVERVIEW

The OMRON Thermac NEO series offers universal temperature controllers, available in 96mm square and 48x96mm sizes. This series has been upgraded with enhanced functions and improved performance, focusing on higher indication accuracy and the addition of preventive maintenance features.



Figure 1: OMRON Thermac NEO Temperature Controllers. The image displays two units: a larger 96mm square model on the left and a smaller 48x96mm model on the right. Both units are black with digital displays. The larger unit's display shows "20000" in red, "20000" in green, and "1000" in green, along with various status indicators. The smaller unit's display shows similar numerical values. Both controllers feature control buttons below their screens.

2. KEY FEATURES

- Terminal block type for secure wiring.
- Temperature input type for precise temperature measurement.
- 1-point control output type, suitable for AC100~240V power supply.
- Improved Indication Accuracy:
 - Thermocouple input: $\pm 0.3\%PV$ (compared to conventional $\pm 0.5\%PV$)
 - Pt input: $\pm 0.2\%PV$ (compared to conventional $\pm 0.5\%PV$)
 - Analog input: $\pm 0.2\%FS$ (compared to conventional $\pm 0.5\%FS$)
- PV/SV Status Display Function: Allows easy alternating display of Process Value (PV) and Set Value (SV) along with the temperature controller's status (Auto/Manual, RUN/STOP, alarm occurrence).
- Control Output ON/OFF Count Function: Enables preventive maintenance of internal relays within the temperature controller by tracking their operation cycles.
- 3-Level Display: Simultaneously displays current value, target value, and manipulated variable for clear and comprehensive monitoring.
- PF Key: Provides one-touch operation for assigning functions such as Auto/Manual switching or RUN/STOP control.

3. SETUP

This section provides general guidelines for setting up your OMRON Thermac NEO Temperature Controller. For detailed wiring diagrams and specific installation instructions, please refer to the separate installation guide provided with your product.

1. **Mounting:** Securely mount the controller in a suitable panel cutout. Ensure adequate ventilation around the unit.
2. **Wiring:** Connect power supply (AC100-240V), temperature sensor (thermocouple or Pt sensor), and control output wiring to the designated terminal blocks. Ensure all connections are firm and correct according to the wiring diagram.
3. **Initial Power-On:** Apply power to the unit. The display should illuminate, showing initial values.
4. **Basic Configuration:** Access the parameter settings to configure input type (e.g., K-type thermocouple, Pt100), control mode (e.g., PID, ON/OFF), and set point (SV).

4. OPERATING INSTRUCTIONS

This section outlines the general operation of the OMRON Thermac NEO Temperature Controller. Specific operational modes and advanced functions are detailed in the comprehensive operation manual.

- **Display Monitoring:** The controller's 3-level display shows the current process value (PV), set value (SV), and manipulated variable (MV) simultaneously. The PV/SV status display function allows easy monitoring of the controller's operational state.
- **Setting the Set Value (SV):** Use the navigation buttons to adjust the target temperature or process value. Confirm the setting to apply changes.
- **Mode Switching:** Utilize the PF key for quick switching between Auto and Manual control modes, or to initiate/stop the control operation (RUN/STOP).
- **Alarm Monitoring:** The controller will indicate alarm occurrences on the display. Refer to the alarm codes in the full manual for specific alarm conditions and remedies.

5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your temperature controller. Always disconnect power before performing any maintenance.

- **Cleaning:** Periodically clean the display and exterior of the controller with a soft, dry cloth. Do not use abrasive cleaners or solvents.

- **Preventive Maintenance for Relays:** The control output ON/OFF count function helps in monitoring the operational cycles of internal relays. This feature allows for proactive replacement of relays before they fail, minimizing downtime. Consult the full manual for recommended replacement intervals based on relay count.
- **Environmental Checks:** Ensure the operating environment remains within specified temperature and humidity ranges. Verify that ventilation openings are not obstructed.

6. TROUBLESHOOTING

This section provides general troubleshooting tips for common issues. For more detailed diagnostics and solutions, refer to the comprehensive troubleshooting guide in the product's main manual.

Problem	Possible Cause	Solution
Display is blank.	No power supply or incorrect wiring.	Check power connections and ensure correct voltage (AC100-240V). Verify wiring according to the manual.
Temperature reading is inaccurate.	Incorrect sensor type selected or faulty sensor/wiring.	Verify the input sensor type setting matches the connected sensor. Check sensor wiring for breaks or shorts. Replace sensor if necessary.
Controller not responding to set value changes.	Controller in Manual mode or parameters locked.	Switch to Auto mode using the PF key. Check parameter lock settings and unlock if necessary.

7. SPECIFICATIONS

Manufacturer	Omron
Part Number	E5AN-HAA2HH01BF-FLKA
Item Weight	420 g (0.42 kg)
Package Dimensions	19 x 16.5 x 16.1 cm
Model/Type	E5AN-HAA2HH01BF-FLKA
Batteries Required	No
ASIN	B079WVZF42
First Available Date on Amazon.co.jp	2018/02/18

8. IMPORTANT INFORMATION

Please Note (Disclaimer) > Please Read Carefully

The product model number for this product, as listed in some descriptions, may have some hyphens, spaces, and alphanumeric characters omitted for brevity. Please refer to the product name field or the official product documentation for the complete and official model number to ensure accuracy.

9. WARRANTY AND SUPPORT

For information regarding product warranty, technical support, or service, please contact Omron customer service or refer to the official Omron website. Keep your purchase receipt and product model number handy when seeking support.

You can find more information about Omron products and support at the official Omron store: [Omron Store on Amazon.co.jp](#)

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