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AEDNX

User Manual

AEDNX Dixell XR75CX-5N7C3 Temperature Controller

Model Number: AEDNX0632

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the AEDNX Dixell XR75CX-5N7C3 Temperature Controller. This device is designed for precise temperature management in commercial refrigeration and freezer units. Please read this manual thoroughly before installation and operation to ensure proper function and safety.

2. Safety Information

Important Safety Precautions:

- Always disconnect power before performing any installation, wiring, or maintenance procedures.
- Installation and wiring must be performed by qualified personnel in accordance with local electrical codes and regulations.
- Ensure the power supply voltage matches the specifications of the controller.
- Do not expose the controller to water or excessive humidity.
- Do not attempt to repair or modify the controller. Refer to qualified service personnel.
- Keep packaging materials away from children.

3. Product Overview

The Dixell XR75CX-5N7C3 is a digital temperature controller featuring a clear display and intuitive controls for managing refrigeration cycles. It includes multiple relay outputs for compressor, defrost, and fan control, along with probe inputs for temperature sensing.

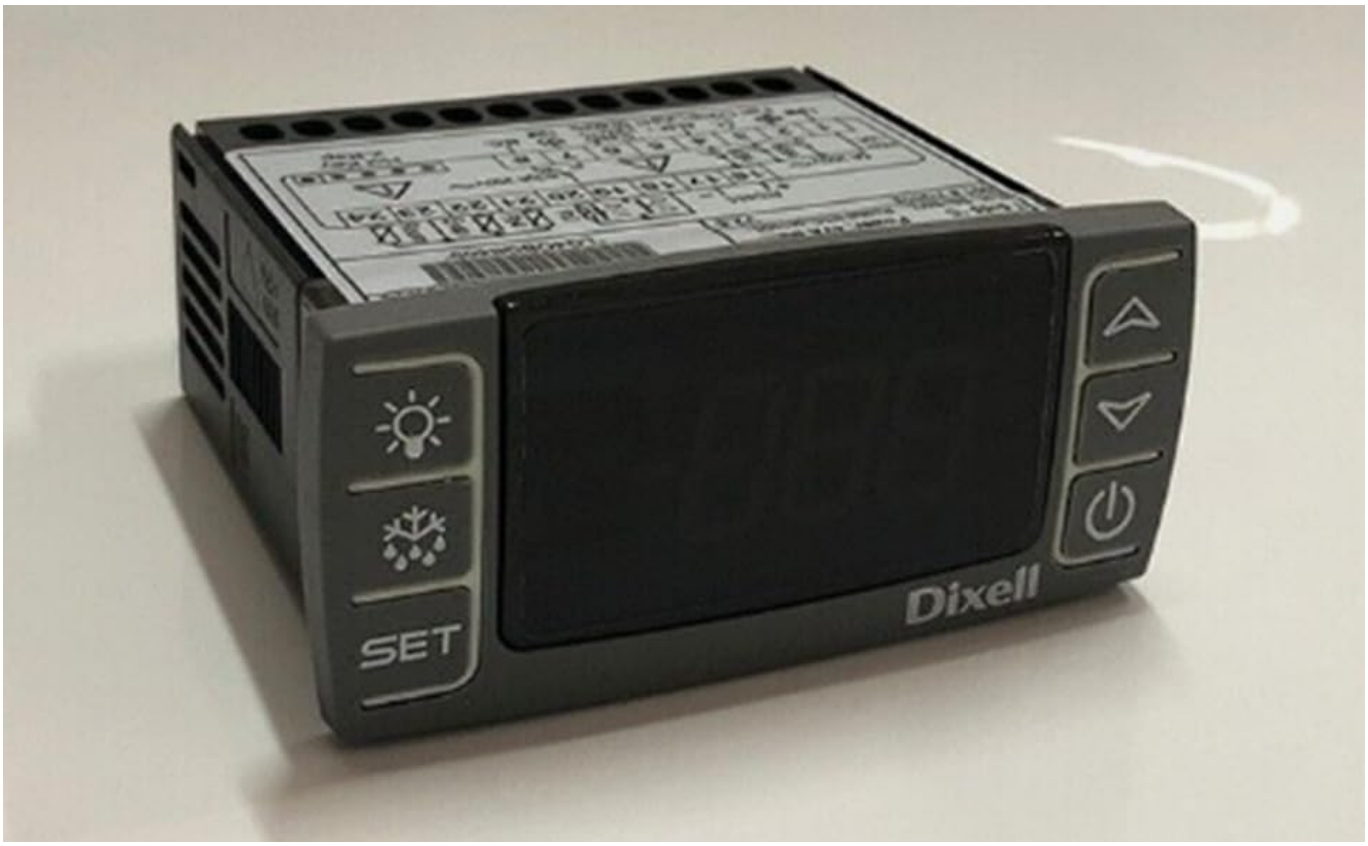


Figure 3.1: Front view of the Dixell XR75CX-5N7C3 Temperature Controller, showing the digital display, control buttons (light, defrost, set, up, down, power), and the Dixell brand logo.



Figure 3.2: Top view of the controller, displaying the detailed wiring diagram for power supply, probes (D.I.1, Pb1, Pb2, Pb3, Pb4), and relay outputs (Line, Fan, Comp, Light, AUX, Supply, N.C., Hot Key, X-Rep). Specifications like T 0+55°C, R.H. 20+85%, Power: 4VA Max, and Probe NTC-pt1000 are also visible.



Figure 3.3: Rear view of the controller, showing the green screw terminal blocks for electrical connections, corresponding to the wiring diagram on the top label.

4. Setup and Installation

4.1 Mounting:

- The controller is designed for panel mounting. Ensure the panel cutout dimensions match the controller's specifications.
- Secure the controller using the provided mounting clips.

4.2 Electrical Wiring:
Refer to the wiring diagram on the top of the controller (Figure 3.2) and the terminal block layout (Figure 3.3) for correct connections. Ensure all connections are secure and properly insulated.

1. **Power Supply:** Connect the main power supply (120V 50-60Hz) to the designated terminals.
2. **Probe Connections:** Connect the NTC-pt1000 temperature probes to the appropriate probe inputs (Pb1, Pb2, Pb3, Pb4) as required by your application (e.g., evaporator, room, auxiliary).
3. **Relay Outputs:** Connect the compressor, fan, defrost heater, and light circuits to their respective relay output terminals. Observe maximum current ratings for each relay.
4. **Digital Inputs:** Connect any digital inputs (e.g., door switch, alarm) to the D.I.1 terminal if applicable.
5. **RS485:** If using Modbus communication, connect the RS485 bus to the dedicated terminals.

Note: *Incorrect wiring can damage the unit and void the warranty. Consult a professional electrician if unsure.*

5. Operating Instructions

5.1 Power On:
Once wired, apply power to the controller. The display will illuminate and show the current temperature.
5.2 Basic Operation:

- **Viewing Setpoint:** Press the **SET** button briefly to view the current setpoint.
- **Changing Setpoint:** Press and hold the **SET** button for 2 seconds until the setpoint value flashes. Use the **UP** (▲) or **DOWN** (▼) buttons to adjust the value. Press **SET** again to confirm and exit.
- **Manual Defrost:** Press and hold the **Defrost** (❄) button for 2 seconds to initiate a manual defrost cycle.
- **Light Control:** Press the **Light** ( ) button to toggle the light output.
- **Standby Mode:** Press and hold the **Power** ( ) button for 3 seconds to enter/exit standby mode.

5.3 Parameter Programming:
Advanced parameters (e.g., differential, defrost interval, fan control) can be accessed and modified. Refer to the full Dixell XR75CX manual for a complete list of parameters and their functions. Accessing parameters typically involves a specific key combination and password.

6. Maintenance

The Dixell XR75CX-5N7C3 controller requires minimal maintenance. Follow these guidelines:

- **Cleaning:** Periodically clean the front panel with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Inspections:** Annually inspect wiring connections for tightness and signs of wear or corrosion.
- **Probe Condition:** Ensure temperature probes are clean and securely positioned for accurate readings.

Caution: *Always disconnect power before cleaning or inspecting the unit.*

7. Troubleshooting

This section addresses common issues you might encounter with the controller.

Problem	Possible Cause	Solution
Display is off	No power supply; Controller in standby mode	Check power connections and circuit breaker. Press and hold the Power button for 3 seconds to exit standby.
"P1" or "P2" error on display	Probe error (open circuit, short circuit)	Check probe wiring and connections. Replace faulty probe if necessary.
Temperature reading inaccurate	Probe misplacement; Dirty probe; Calibration issue	Ensure probe is correctly positioned. Clean the probe. Check controller calibration parameters.
Compressor not running	Setpoint not reached; Defrost cycle active; High temperature alarm; Compressor delay	Verify setpoint. Wait for defrost cycle to complete. Check alarm conditions. Allow for compressor start-up delay.

If the problem persists after attempting these solutions, contact qualified service personnel.

8. Specifications

Feature	Detail
Model Number	AEDNX0632
Manufacturer	AEDNX
ASIN	B0F1VCBP4J
Power Supply	120V, 50-60Hz
Power Consumption	4VA Max
Operating Temperature	0 to +55°C
Relative Humidity	20 to 85% (non-condensing)
Probe Type	NTC-pt1000
Date First Available	March 18, 2025

9. Warranty and Support

For warranty information and technical support, please contact your retailer or the manufacturer, AEDNX. Keep your purchase receipt as proof of purchase.
For further assistance or detailed programming guides, refer to the official Dixell XR75CX series documentation available from Dixell or authorized distributors.

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