

CEMELI DVP04PT-E2

CEMELI DVP04PT-E2 PLC Module Instruction Manual

Model: DVP04PT-E2

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the CEMELI DVP04PT-E2 PLC Module. Please read this manual thoroughly before using the product to ensure safe and efficient operation.

2. SAFETY INFORMATION

Observe the following safety precautions to prevent injury to personnel and damage to the module or connected equipment:

- Ensure power is disconnected before installation or wiring.
- Only qualified personnel should perform installation and maintenance.
- Do not operate the module in environments exceeding its specified temperature, humidity, or vibration limits.
- Verify all wiring connections are correct and secure before applying power.
- Ground the module properly to prevent electrical shock and interference.

3. PRODUCT OVERVIEW

The CEMELI DVP04PT-E2 is a Programmable Logic Controller (PLC) module designed for industrial automation applications. It functions as a Platinum Resistance Temperature Detector (RTD) input module, allowing for precise temperature measurement within a PLC system.



Figure 3.1: Representative image of a CEMELI E2 series PLC module. This specific image shows a DVP04AD-E2 (4 Analog Input) module. The DVP04PT-E2 module will have similar physical characteristics but is configured for RTD inputs. The module features multiple screw-terminal blocks for input/output connections at the top and bottom. The central panel includes indicators for 'POWER' and 'A->D' (Analog to Digital conversion). The top terminals are labeled V1+, I1+, VI1-, FE, V2+, I2+, VI2-, FE, V3+, I3+, VI3-, FE. The bottom terminals include DC IN 24V 0V, FE, V4+, I4+, VI4-, FE.

3.1. Key Features

- High-precision RTD input for temperature measurement.
- Compact design for space-saving installation.
- Easy integration with compatible PLC systems.

- Robust construction for industrial environments.

4. SETUP AND INSTALLATION

4.1. Mounting

The module is designed for DIN rail mounting. Securely attach the module to a standard DIN rail within the control cabinet. Ensure adequate clearance for ventilation and wiring.

4.2. Wiring

Refer to the following guidelines for proper wiring:

1. **Power Supply:** Connect a stable 24V DC power supply to the designated power terminals (e.g., "DC IN 24V 0V"). Observe polarity.
2. **Grounding:** Connect the "FE" (Functional Earth) terminal to a proper earth ground to minimize electrical noise and ensure safety.
3. **RTD Inputs:** Connect your Platinum Resistance Temperature Detectors (RTDs) to the input terminals. The DVP04PT-E2 typically supports 2-wire, 3-wire, or 4-wire RTD connections. Consult the specific wiring diagram for your RTD type and the module's terminal assignments. Ensure correct polarity and secure connections for accurate readings.
4. **Communication:** Connect the module to the main PLC unit via the appropriate communication interface (e.g., expansion bus connector).

Note: Always consult the detailed wiring diagrams provided with your specific DVP04PT-E2 module for precise terminal assignments and connection methods.

5. OPERATING INSTRUCTIONS

5.1. Power-Up

After completing all wiring, apply power to the module. The "POWER" indicator on the module should illuminate, indicating successful power-up.

5.2. Configuration

The DVP04PT-E2 module requires configuration through the PLC programming software. This typically involves:

- Selecting the RTD type (e.g., Pt100, Pt1000).
- Setting the measurement range.
- Configuring input channels.
- Defining scaling parameters for temperature values.

Refer to your PLC system's programming manual for detailed instructions on configuring expansion modules.

5.3. Data Acquisition

Once configured, the module will convert the RTD resistance values into digital temperature data, which can be read and processed by the PLC program. Monitor the "A->D" indicator for activity during analog-to-digital conversion.

6. MAINTENANCE

The DVP04PT-E2 module is designed for reliable operation with minimal maintenance. However, periodic checks are

recommended:

- **Visual Inspection:** Regularly inspect the module for any signs of physical damage, loose connections, or overheating.
- **Cleaning:** Keep the module free from dust and debris. Use a soft, dry cloth for cleaning. Do not use solvents.
- **Connection Integrity:** Periodically check that all terminal connections are secure.

Caution: Disconnect power before performing any maintenance or cleaning.

7. TROUBLESHOOTING

If you encounter issues with your DVP04PT-E2 module, consider the following:

Problem	Possible Cause	Solution
Module "POWER" indicator off	No power supply, incorrect wiring, or faulty power supply.	Check 24V DC power supply connections and voltage. Ensure polarity is correct.
Incorrect temperature readings	Incorrect RTD wiring, wrong RTD type configured, sensor fault, or electrical noise.	Verify RTD wiring against diagram. Check PLC configuration for correct RTD type and range. Inspect RTD sensor. Ensure proper grounding.
Module not communicating with PLC	Loose communication cable, incorrect module address, or PLC configuration error.	Check communication cable connection. Verify module address and configuration in PLC software.

If the problem persists, contact CEMELI technical support or your local distributor.

8. SPECIFICATIONS

The following specifications apply to the CEMELI DVP04PT-E2 PLC Module:

Feature	Detail
Brand	CEMELI
Model Name	DVP04PT-E2
Material	Copper (likely internal components)
Item Weight	50 Grams (1.76 ounces)
Package Dimensions	1.18 x 0.79 x 0.39 inches
Manufacturer	CEMELI
Assembly Required	No
Number of Pieces	1

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact

your CEMELI distributor or reseller. Keep your purchase receipt as proof of purchase.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question