

Altronix VR1TM5

Altronix VR1TM5 Power Conversion Module Instruction Manual

1. INTRODUCTION

This manual provides detailed instructions for the safe and efficient installation, operation, and maintenance of the Altronix VR1TM5 Power Conversion Module. Please read this manual thoroughly before attempting to install or operate the device. Retain this manual for future reference.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury and damage to the device:

- **Disconnect Power:** Always disconnect power to the circuit before installing, servicing, or removing the module.
- **Qualified Personnel:** Installation and servicing should only be performed by qualified personnel familiar with low-voltage power systems.
- **Correct Voltage:** Ensure the input voltage matches the specifications of the VR1TM5 module. Applying incorrect voltage can damage the unit.
- **Polarity:** Observe correct polarity when connecting input and output wiring. Incorrect polarity can cause damage.
- **Indoor Use Only:** This module is designed for indoor use only. Do not expose it to moisture or extreme temperatures.
- **Ventilation:** Ensure adequate ventilation around the module to prevent overheating.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- Altronix VR1TM5 Power Conversion Module (1 Unit)
- Instruction Guide (This document)

4. PRODUCT OVERVIEW

The Altronix VR1TM5 is a compact power conversion module designed to convert a 24VAC or 24VDC input into a regulated 5VDC output at 1 Amp. This indoor module is suitable for various low-voltage applications requiring a stable 5VDC power source. Its plastic enclosure and terminal connections ensure ease of installation and reliable performance.



Image: Altronix VR1TM5 Power Conversion Module. This image displays the compact black plastic module with terminal blocks for input and output connections.

5. SPECIFICATIONS

Feature	Specification
Model Number	VR1TM5
Input Voltage	24VAC or 24VDC
Output Voltage	5VDC
Output Current	1 Amp

Feature	Specification
Module Type	Indoor Module
Material	Plastic
Finish	Black
Enclosure Dimensions (H x W x D)	3-3/4" x 2-1/2" x 1" (approx. 9.5cm x 6.35cm x 2.54cm)
Product Dimensions	2.36 x 1.61 x 0.98 inches
Item Weight	2.22 ounces
Standards	CE Approved

6. SETUP AND INSTALLATION

Follow these steps for proper installation of the VR1TM5 module:

- Power Disconnection:** Ensure that all power to the installation area is disconnected before beginning.
- Mounting:** Mount the VR1TM5 module in a secure, dry, and well-ventilated indoor location. The module includes hook and loop fasteners for easy mounting.
- Input Wiring:** Connect the 24VAC or 24VDC power source to the input terminals of the VR1TM5 module. Observe correct polarity for DC input. Refer to the markings on the module for positive (+) and negative (-) connections.
- Output Wiring:** Connect the device requiring 5VDC power to the output terminals of the VR1TM5 module. Ensure correct polarity for the connected device.
- Verify Connections:** Double-check all wiring connections to ensure they are secure and correctly polarized.
- Apply Power:** Once all connections are verified, restore power to the circuit.

7. OPERATING INSTRUCTIONS

The Altronix VR1TM5 Power Conversion Module operates automatically once correctly installed and powered. It will convert the 24VAC or 24VDC input to a stable 5VDC output. No user intervention is required for its basic operation.

- Power Indicator:** The module may feature an LED indicator (if present) to show power status. Refer to the module's labeling for specific indicator functions.
- Load Capacity:** Ensure the connected device's current draw does not exceed the module's 1 Amp output capacity. Overloading can cause the module to shut down or be damaged.

8. MAINTENANCE

The Altronix VR1TM5 module requires minimal maintenance. Follow these guidelines to ensure long-term performance:

- Keep Clean:** Periodically clean the exterior of the module with a soft, dry cloth. Do not use liquid cleaners or solvents.

- **Inspect Connections:** Occasionally check all wiring connections to ensure they remain secure and free from corrosion.
- **Ventilation:** Ensure that the module's ventilation is not obstructed.
- **Environmental Conditions:** Maintain the module within its specified operating temperature and humidity ranges.

9. TROUBLESHOOTING

If the VR1TM5 module is not functioning as expected, consider the following:

- **No Output Power:**
 - Verify that the input power source (24VAC or 24VDC) is active and correctly connected to the module's input terminals.
 - Check all wiring for loose connections or breaks.
 - Ensure correct input and output polarity.
 - Confirm that the connected device is not drawing more than 1 Amp, which could cause the module to protect itself.
- **Incorrect Output Voltage:**
 - Measure the input voltage to ensure it is within the specified 24VAC/VDC range.
 - If the input voltage is correct and the output is still incorrect, the module may be faulty.
- **Overheating:**
 - Ensure the module is not covered and has adequate airflow.
 - Reduce the load on the output if it is consistently running hot.

If troubleshooting steps do not resolve the issue, contact Altronix customer support for further assistance.

10. WARRANTY AND SUPPORT

For information regarding the product warranty, please refer to the official Altronix website or contact Altronix customer service directly. Warranty terms and conditions may vary.

Manufacturer: Altronix

For technical support or service inquiries, please visit the Altronix official website or consult your authorized dealer.