

Specifications	
Power Supply	24 VAC/DC (+/-8.3%) External Power <i>(Note: Output and power supply negatives are not isolated.)</i>
Power Consumption	< 2VA
Voltage Measurement	15, 50, 150, and 500 VAC or DC
Input Impedance	15, 50 VAC/VDC: >220KΩ, 150, 600VAC/VDC: 620KΩ
Frequency Range	0 - 5KHz
Output	4 - 20 mA
Output Limit	31mA
Response Time	500 ms (90% step change)
Accuracy	<1% Full Scale
Output Impedance	< 400Ω
Isolation Voltage	UL tested to 2200VAC
Case	UL 94V-0 Flammability rated thermoplastic
Environmental	-Temp -4 to 122°F (-20 to 50°C) -Humidity 0-95% RH, Non-condensing -Pollution degree 2 -Altitude 2000 meters
Certifications	cULus listed E222847 CE

For products intended for the EU market, the following is applicable to the CE compliance of the product:

The VADT Series comply with EN 61010-1 CAT III 600V max measurement category. Use 24 V input power and fuse at 5 amps. Power source overvoltage category I as defined per EN 61010-1.



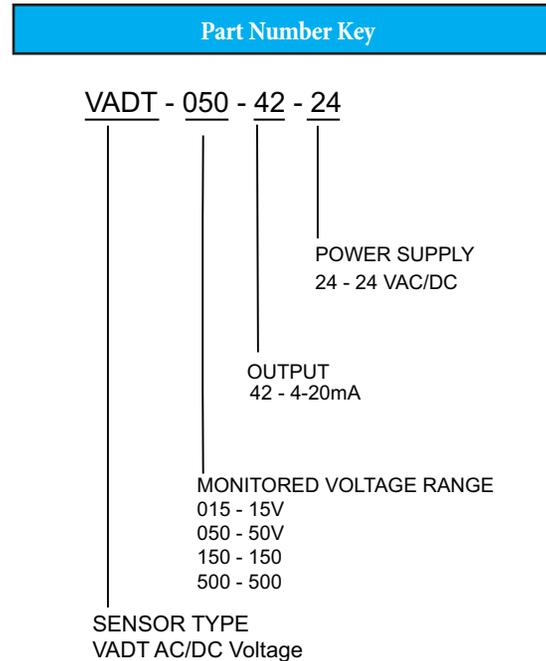
Warning! Risk of hazardous voltage

When operating the device, certain parts may carry hazardous live voltage (e.g., primary conductor, secondary terminals). The device should not be put into service if the installation is not complete.



Warning! Risk of electric shock or personal injury

Safe operation can only be guaranteed if the device is used for the purpose for which it was designed and within the limits of the technical specifications. When this symbol is used, it means you should consult all documentation to understand the nature of potential hazards and the action required to avoid them.



VADT SERIES INSTALLATION INSTRUCTIONS



Part No. VADT015-42-24

Quick Start Guide

1. Ensure correct sensor model was chosen for monitored voltage of application.
2. Mount the sensor to a DIN rail using an integrated mounting clip on the backside of the transducer.
3. Connect input voltage to be monitored to terminals 5 & 6 using 30-12AWG copper wires rated 75/90°C, 5-7 in-lbs torque. Output and power wiring using 22AWG up to 12AWG copper wires rated 75/90°C, 6 in-lbs torque..
4. Connect 24VAC or DC power supply fused to 5 amps to terminal 3 & 4.

Do not connect power and signal together.



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Description

VADT Series Voltage Transducers are designed to monitor AC or DC voltage and detect conditions where supply voltage is above or below normal. Detecting such conditions helps users to avoid problems commonly associated with voltage irregularities such as motor overheating, brownouts and conductor failure or poor connections.

Installation

VADT transducers feature a 35mm wide DIN rail-compatible enclosure and are typically located in the same environment as motors, contactors, heaters, pull-boxes, and other electrical enclosures.

To mount on DIN rail: Orient transducer so that line voltage terminals L1 and L2 are upright/on top of unit and snap securely onto DIN rail. To remove, insert a small screwdriver into the lower mounting hole of the spring-loaded clip, and push the handle end of the screwdriver toward the sensor base to release the tension on the rail.

To mount using screws: Insert screws and mount to backplane or other suitably flat surface.

Monitored Voltage Wiring Connection



CAUTION: To avoid any potential for shock or safety hazard, ensure line voltage is disconnected at source before wiring to unit.

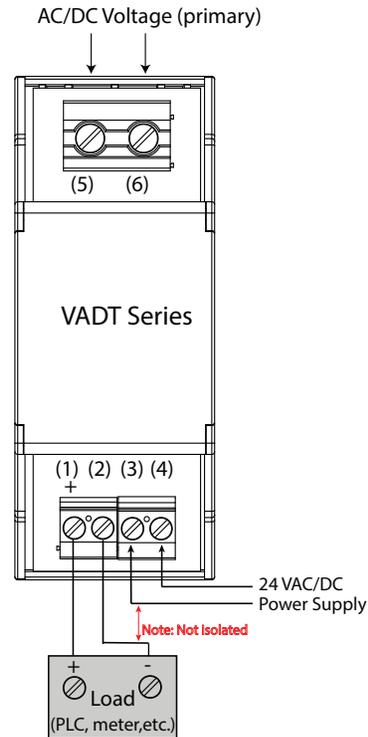
Connect input voltage to be monitored to terminals (5) and (6) on transducer using 30-12 AWG copper wires and tighten terminals 5-7 inch pounds torque.

Do not connect the power supply and signal together. There is no isolation between power and signal.

Output Wiring

Connect control or monitoring wires to the sensor terminals 1 and 2. Use 22-12 AWG copper wire insulated to 75/90°C and tighten terminals to , 6 in-lbs torque.

Observe polarity, terminal 1 is the positive output, 2 is negative.



Troubleshooting

1. Transducer has no output.
 - A. Power supply is not properly sized.
Check the power supply voltage and output rating. Each transducer requires less than 2VA to operate.
 - B. Output polarity is not properly matched.
Check and correct wiring polarity.
2. Output signal too low or too high.
Transducer model improperly sized for application.
Determine the normal operating voltage of your monitored circuit and ensure transducer selected is equal to or slightly higher than the normal operating voltage.
3. Transducer output is always at 4mA.
 - A. Primary circuit is not on.
Check that the monitored circuit is actually energized.
4. Transducer output is always at 20mA.
Voltage is higher than transducer range.
Select a higher range product.

Transducer Output vs. Input Voltage

