

Applications

The VeriSafe Network Module provides a way to leverage data from an Absence of Voltage Tester (AVT) for smarter system monitoring. Take troubleshooting to the next level by automatically measuring voltage and monitoring AVT results, without the need to open equipment doors and covers.

VS2-NET is ONLY compatible with VS2-AVT models

Key Features and Benefits

Smart Technology

- Keep doors and covers closed for monitoring and troubleshooting
- View AVT test results and data logs
- Use voltage and test data to trigger alerts in your control system
- Ability to initiate the absence of voltage test from the Network Module

Flexible Integration

- Ethernet connectivity
- Solid state I/O contacts
- Custom Add on Profile for easy integration in Rockwell Automation Studio 5000, Automatic Diagnostics ready
- Supports Modbus TCP and Ethernet/IP protocols

Onboard Web Application

PANDUIT VeriSafe™ Network Module
Pump 1

1 Data Logs

2 Name: Pump 1
Date & Time: 5/9/23, 12:26 PM

3 AVT Status

4 AVT Test Data

Updated	5/9/23, 12:26 PM
Battery Voltage	3.6 V
Test Temperature	25°C (77°F)
Updated	5/9/23, 12:26 PM
Connection Status L1	YES
Connection Status L2	YES
Connection Status L3	YES
Connection Status GND	YES
Test Result 1	Voltage Exceeded
Test Result 1 Date	5/9/23, 12:26 PM
Test Result 2	Pass
Test Result 2 Date	5/9/23, 12:25 PM

5 Test Results

6 Voltage Presence

L1 L2 L3

7 Voltage Measurements

Line To Ground	RMS	Peak
L1	301 Vrms	426 V
L2	301 Vrms	427 V
L3	300 Vrms	425 V
Line To Line	RMS	Peak
L1-L2	521 Vrms	738 V
L1-L3	521 Vrms	739 V
L2-L3	521 Vrms	739 V

8 AVT Temperature

Current Temperature 25°C (77°F)

9 Activate AVT Test

- 1 Access to historical data and test results
- 2 Customizable name for easy identification and device management
- 3 Monitor and trend temperature (AVT Isolation Module)
- 4 Verify AVT sensor lead status
- 5 AVT test results with diagnostic codes & timestamp

- 6 Quickly identify voltage loss in any phase
- 7 Voltage Measurement
 - Troubleshoot remotely
 - Views for three-phase and single-phase (AC or DC)
- 8 View the current temperature of the Isolation Module
- 9 Initiate absence of voltage test remotely

Technical Specifications

ENVIRONMENT

Operating Temperature	-25°C to 60°C (-13°F to +140°F)
Storage Temperature	-45°C to 85°C (-49°F to +185°F)
Humidity	5 to 90% non-condensing; Rated 80% at 40°C, decreasing linearly to 50% at 60°C
Pollution Degree	3
Degree of Protection	IP20
Altitude	Up to 5,000 meters (3.1 miles)
Dimensions	5.3 in x 4.4 in x 1.1 in (135 mm x 112 mm x 28 mm)

POWER*

Power over Ethernet	PoE (10/100) IEEE 802.at (-af) Type 1 Class III PoE topology
DC Input	12-24 VDC 24-14 AWG (0.75 - 1.5 mm ²) Solid/Stranded
Current Draw	84mA @ 12 VDC @ 42mA 24 VDC
Power Consumption	1 Watt

*Note: Network Module supplies power to the AVT. No additional AVT power (battery or DC) required.

NETWORK

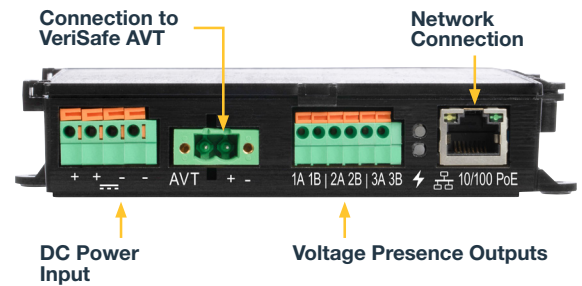
Communication Protocols	EtherNet/IP
Connector	Standard RJ45
Data Refresh Rate	2 seconds; upon test initiation
Onboard Web Application	

SECURITY

Features	Secure boot, flash encryption, HTTPS support
Isolation	Network module communication is isolated from the AVT safety function

VOLTAGE PRESENCE CONTACTS

Solid-state Relay	Normally open, relays close when red AVT indicators are illuminated (>47 V)
Wire Size	26-16 AWG (0.13 - 1.3 mm ²) Solid/Stranded
Isolation	5000 Vrms Input/Output
Voltage Rating	30 VDC and 30 VAC
Current Rating	80 mA (max)
On-resistance	30 Ω



INSTALLATION

Attach to AVT Isolation Module (shown) or mount separately (DIN Rail or surface)



CERTIFICATIONS

UL 508A Industrial control panel component

UL 1604 ITE equipment for hazardous locations



Note: Refer to the VS2-NET User Manual for full list of standards and certifications.

VOLTAGE MONITORING RESOLUTION

Range - VAC Accuracy	Range - VDC Accuracy
0-33 VAC +/- 7V	0-100 VDC +/- 5V
34-99 VAC +/- 5V	101-300 VDC +/- 4%
100-300 VAC +/- 2%	301-700 VDC +/- 2%
301-1000 VAC +/- 1.5%	701-1000 VDC +/- 1.5%

To get the most accurate voltage readings, ensure the appropriate power system configuration is selected in the web application.

*All values in this table are to be used as a reference and are expected to be within these ranges.

Note: The absence of voltage indication from the AVT utilizes a separate circuit that is optimized for the 3V threshold defined by UL 1436.