

The VeriSafe 1kV 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.



VeriSafe 1kV Network Module is **ONLY** compatible with VeriSafe 1kV AVTs



## KEY FEATURES & 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



### Flexible integration:

Ethernet connectivity  
Solid state I/O contacts  
Custom add-on profile for easy integration in Rockwell Automation Studio 5000, automatic diagnostics ready

## ONBOARD WEB APPLICATION

The screenshot shows the VeriSafe 1kV web application interface. On the left is a navigation menu with options: Data Logs, Settings, Documentation, Support, and Logout. The main content area is divided into several sections:

- Section 2:** A customizable name field set to "VeriSafe 1kV" with a green checkmark icon.
- Section 3:** A table showing AVT data:
 

|                 |                  |
|-----------------|------------------|
| Updated         | 8/31/21, 2:25 PM |
| Battery Voltage | 3.2 V            |
| AVT Temperature | 20° C (68°F)     |
- Section 4:** A table showing connection status:
 

|                       |                  |
|-----------------------|------------------|
| Updated               | 8/31/21, 2:26 PM |
| Connection Status L1  | YES              |
| Connection Status L2  | YES              |
| Connection Status L3  | YES              |
| Connection Status GND | YES              |
- Section 5:** A table showing test results:
 

|                    |                            |
|--------------------|----------------------------|
| Test Result 1      | Pass                       |
| Test Result 2 Date | 8/31/21, 2:28 PM           |
| Test Result 2      | Connectivity Not Confirmed |
| Test Result 2 Date | 2/6/00, 10:07 AM           |
- Section 6:** Voltage Presence status for L1, L2, and L3, each with a red lightning bolt icon indicating a fault.
- Section 7:** Voltage Measurements table:
 

| Line To Ground | RMS      | Peak  |
|----------------|----------|-------|
| L1             | 480 Vrms | 687 V |
| L2             | 479 Vrms | 677 V |
| L3             | 480 Vrms | 679 V |

| Line To Ground | RMS      | Peak  |
|----------------|----------|-------|
| L1-L2          | 277 Vrms | 392 V |
| L1-L3          | 277 Vrms | 392 V |
| L2-L3          | 277 Vrms | 392 V |

- 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 Verify AVT sensor lead status

## TECHNICAL INFORMATION






### ENVIRONMENT

|                              |   |
|------------------------------|---|
| <b>Temperature:</b>          | Operating: -13°F to +140°F (-25°C to 60°C)<br>Storage: -49°F to +185°F (-45°C to 85°C)            |
| <b>Humidity:</b>             | 5 to 90% non-condensing;<br>Rated 80% at 104°F (40°C), decreasing linearly to 50% at 140°F (60°C) |
| <b>Pollution degree:</b>     | 3   |
| <b>Degree of protection:</b> | IP20  |
| <b>Altitude:</b>             | Up to 16,400 feet (5,000 meters)  |
| <b>Dimensions:</b>           | 5.3 in. x 4.4 in. x 1.1 in. (135mm x 112mm x 28mm)  |

### POWER\*

|                             |   |
|-----------------------------|---|
| <b>Power over Ethernet:</b> | PoE (10/100)<br>IEEE 802.3at (-af) Type 1 Class III PoE topology                  |
| <b>DC input:</b>            | 12-24 VDC<br>24-14 AWG (0.75mm <sup>2</sup> – 1.5mm <sup>2</sup> ) Solid/Stranded |
| <b>Current draw:</b>        | 84mA @ 12 VDC @ 42mA 24 VDC   |
| <b>Power consumption:</b>   | 1 Watt  |

### NETWORK

|                                 |   |
|---------------------------------|---|
| <b>Communication protocols:</b> |     |
| <b>Connector:</b>               | Standard RJ45   |
| <b>Data refresh rate:</b>       | 2 seconds; upon test initiation   |
| <b>Onboard web application:</b> |    |

### SECURITY

|                   |   |
|-------------------|---|
| <b>Features:</b>  | Secure boot, flash encryption, HTTPS support                          |
| <b>Isolation:</b> | Network module communication is isolated from the AVT safety function |

### VOLTAGE PRESENCE CONTACTS

|                           |   |
|---------------------------|---|
| <b>Solid-state relay:</b> | Normally open, relays close when red AVT indicators are illuminated (>47 V) |
| <b>Wire size:</b>         | 26-16 AWG (0.13mm <sup>2</sup> – 1.3mm <sup>2</sup> ) Solid/Stranded        |
| <b>Isolation:</b>         | 5000 Vrms Input/Output  |
| <b>Voltage rating:</b>    | 30 VDC and 30 VAC   |
| <b>Current rating:</b>    | 80 mA (max)   |
| <b>On-resistance:</b>     | 30 Ω  |

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

STANDARDS AND CERTIFICATIONS



|          |                                       |
|----------|---------------------------------------|
| UL 508A: | Industrial control panel component    |
| UL 1604: | ITE equipment for hazardous locations |

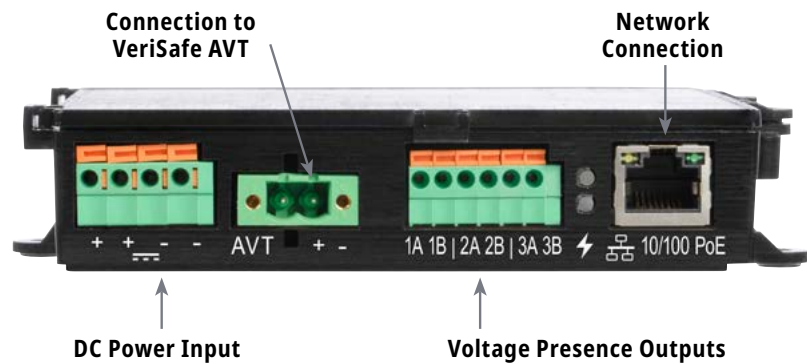
Note: Refer to the VS2-NET User Manual for full list of standards and certifications.

VOLTAGE MONITORING RESOLUTION

| Range – VAC Accuracy | Range – VDC Accuracy |
|----------------------|----------------------|
| 40*-200 VAC ± 4 V    | 40*-300 VDC ± 9 V    |
| 201-300 VAC ± 2 %    | 301-700 VDC ± 2%     |
| 301-1000 VAC ± 1.5%  | 701-1000 VDC ± 1.5%  |

\*The Network module is designed to report measured values between 40-1000 V. The Network module is not optimized to report voltages under 40 V. However, the absence of voltage indication from the AVT utilizes a separate circuit that is highly accurate and optimized for the 3V threshold.

CONNECTIONS



INSTALLATION

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

