InsuLogix® VAULT

InsuLogix® VAULT is an advanced transformer control and monitoring platform designed to meet the evolving demands of power transformer operators. The system uses Weidmann embedded Optimum Performance Monitoring™ (OPM) software that allows the operator to measure the health and performance of transformers during normal, fault, or emergency operation.

FUNCTIONS

- Transformer Systems Health Monitoring
  - Active part
  - Bushings
  - Online tap changer
  - Cooling system
- Transformer Load Monitoring
  - Optimal load
  - Nominal load
  - Load threshold
  - Time-to-peak
  - Load margin and forecasting
  - Real-time loss of life (LoL)
- Power Metrology LTC Status
- Integration of Various Transformer Monitors
  - Weidmann monitors pre-configured
  - Other 3rd party monitors
- Transformer/Substation Security Monitoring

OPM™ SOFTWARE

- Geospatial visibility for VAULT deployments
- Provides data trending and advanced analytics including an overall transformer health index
- Local and remote visibility and control capabilities via Smart Display and web interface
- One Touch Access software applications and browser interfaces provide intuitive and efficient operations
- A full range of third party applications can also be installed on the optional Smart Display

InsuLogix® VAULT optional Smart Display

InsuLogix® VAULT controller/monitor integrator

ADVANTAGES

Expertise

Diagnostics developed by Weidmann's transformer insulation and diagnostics experts.

Reliability

Built to meet/exceed U.S. military procurement and production standards.

Security

Meets NERC Critical Infrastructure Program cyber and physical security standards.

Cost savings

Provides power meter, annunciators, and other transformer controls along with security monitoring functionality in addition to its role as transformer health and load monitor.

Warranty

Three year manufacturer warranty. Extended warranty available.

InsuLogix® VAULT

WEIDMANN

InsuLogix® VAULT Specifications

Attributes	
Dimensions	440 x 365 x 65 mm (17.3" x 14.3" x 2.5") with connectors
Weight	6.7 kg (14.7 lbs)
Power	Input: 48 V DC, 125 V DC, or 120/240 V AC
	Draw: 15 W standalone; 30 W with Display
Power Meter	
Dedicated processor	Uses a dedicated ARM SAM4CMP32 dual core processor
Input	3 High Voltage AC inputs with 20,000 Ohms impedance.
Output	3 Phase RMS Voltage, Current, Active Power, Reactive Power, Apparent Power, and Phase
	Neutral line current measurement
	Power line frequency
Processor, Storage, Time	
CPU & RAM	SAMA5D35 processor with 2 GB (512 MB) RAM
Solid State Drive (SSD)	Up to 64 GB microSD
Time Synchronization	< 1 second via GPS and cell networks
Inputs / Outputs	
Digital Inputs	32 AC or DC inputs
Analog Inputs	8 inputs; 3 x ± 10 V/ 3 x 0-1 A;
	2 x selectable 4-20 mA, ± 1 mA, 0-1 mA
Temperature Inputs	8 x RTD or thermocouple inputs
Digital Outputs	16 total; 12 Form C; 4 Form A
Trip Outputs	2 x 5 A at 125 VAC or 10 A at 240 AC
Serial	4 x RS232/485; 2 x USB 2.0 type A; 1 x USB type B
Ethernet	1 full switch with 8 x 10/100/1000 ports
	1x LC fiber interface
	1 x 10/100 Ethernet, SCADA dedicated
Video IP Camera Input	Hardware and software supports up to 4 IP cameras
Communications	
Multiple Communications Capabilities	Cellular connection, 4G LTE (Verizon or ATT)
	Modbus RTU slave Modbus TCP
	DNP3 Level 2 Slave (LAN/WAN and Serial)
	IEC 61850 (customer implementation)
User Interface	
Web-based user interface and tools	Web-based user inferface provides GUIs, health/status, security video and report generation
Environments	
Temperature	Operating: - 40 °C to + 85 °C
Vibration and Shock	IEC 61373 vibration and shock
EMI/EMC	IEC 61326-1
Others	UL, IP54, IEEE C37.90

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