



DESCRIPTION

Varixx is introducing the integrated Continuous Temperature Monitoring + Arc Flash system, which provides the industries first Arc Flash Prevention system.

The ZYGOT THM+ARC is an innovative integrated solution from Varixx that combines continuous thermographic monitoring with advanced arc flash protection. Designed for low and medium voltage systems, it delivers high performance, reliability, and safety in a single compact device—optimizing space and increasing the availability of critical assets.

In 2008, Varixx was the world's first company to introduce a Continuous, Online, Networked Temperature Monitoring System, and continues to lead the market in this area. The economical modular ZYGOT system was designed to allow online monitoring temperatures of low and medium voltage electrical equipment internal connections, transformers, motors, etc., replacing old methods of periodic thermography with cameras. The ZYGOT system introduced this important innovation due to current safety standards prohibit the opening of energized electrical panels for any type of measurement, including temperature measurements with manual point-of-care guns or thermography cameras, without the use of appropriate protective clothing. An innovative feature of the ZYGOT temperature system is the dual measurement of both the target and the sensor body. The sensor body temperature is equal to the temperature of the sensor environment is equal to the internal temperature of the cabinets and sections.

In 2014, Varixx introduced the world's first and only Ultraviolet arc detection system, which does not require confirmation of current rise, from the use of CT's, and the response time is fast enough, ($\leq 250 \mu\text{s}$), to prevent an arc from forming. For fiber optic based detection systems, an actual arc has to be formed to detect an arc flash event, then relies on its closing speed to limit the amount of arc flash energy emitted to the atmosphere. When the arc forms, damage is incurred, and an arc incident has occurred warranting a shutdown, investigation, and resolution, which relates to loss of production.

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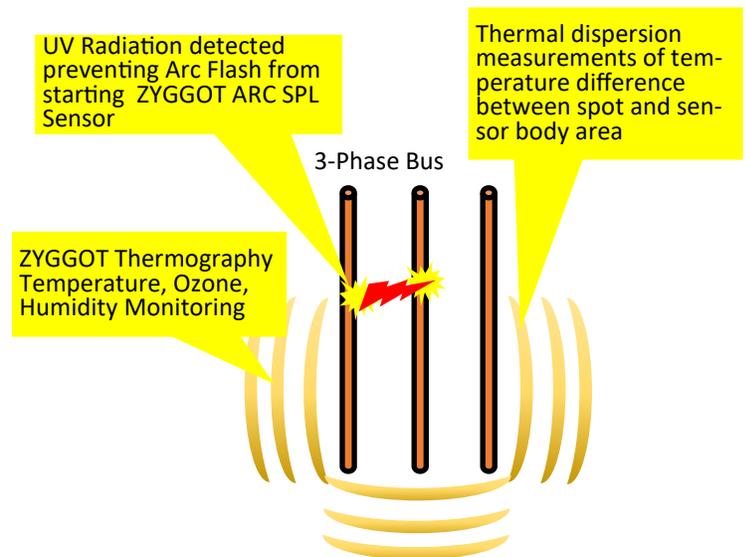
ZYGOT THM + ARC

ARC FLASH PREVENTION

BENEFITS

- ◆ Industry's first and only Arc Flash Prevention solution
- ◆ Economical solution for Brownfield and Greenfield installations
- ◆ Integrated Thermographic Monitoring and Arc Detection
- ◆ Integrates up to 100 Arc Flash Sensors
- ◆ Integrates up to 100 Temperature Sensors
- ◆ Incident Energy Reduction by 150x
- ◆ Can detect UV in non-visible areas
- ◆ Modular and Scalable to fit your application
- ◆ Compact design optimizes panel space

ARC FLASH PREVENTION EXPLAINED



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THM + ARC

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ARC UVA SENSOR	
MODEL: ZSA/90/24/UVA/SPL	
MEASUREMENT ANGLE	90° AT ≥7 METERS (20') WITH 200A/1CM ARC
ARC SENSITIVITY	UP TO 30 METERS (90')
UV WAVELENGTH	200 TO 380 NM
POWER SUPPLY	+24VDC (NETWORK POWERED)
TEMPERATURE RANGE	-20 TO 89°C
STORAGE TEMPERATURE	-40 TO 125°C
DIAMETER	19 mm (0.75")
LENGTH	53 mm (2.086")
MATERIAL OF CONST.	STAINLESS STEEL
AREA OF USE	INSIDE SHELTER



THM TUBULAR TEMPERATURE SENSOR	
MODEL: ZST/M/7/300/24	
MEASUREMENT ANGLE	7°
ACCURACY	+/- 2.5% F.S.
RESOLUTION	1°C
READING ERROR	+/- .5°C (0 - 125°C)
TARGET READING	0 TO 300°C (0 - 572°F)
AREA READING	0 TO 75°C (0 - 167°F)
MATERIAL OF CONST.	STAINLESS STEEL/ POLYCARBONATE
DIAMETER	19 mm (0.75")
LENGTH	53 mm (2.086")



ARC UVA SENSOR	
MODEL: ZSA/90/24/UVB/SPL	
MEASUREMENT ANGLE	90° AT ≥7 METERS (20') WITH 200A/1CM ARC
ARC SENSITIVITY	UP TO 30 METERS (90')
UV WAVELENGTH	200 TO 380 NM
POWER SUPPLY	+24VDC (NETWORK POWERED)
TEMPERATURE RANGE	-20 TO 89°C
STORAGE TEMPERATURE	-40 TO 125°C
DIAMETER	19 mm (0.75")
LENGTH	53 mm (2.086")
MATERIAL OF CONST.	STAINLESS STEEL
AREA OF USE	OUTSIDE SHELTER (SUN)



HUMIDITY SENSOR	
MODEL: ZSB/M/60/120	
MEASUREMENT RANGE	0—100%
ACCURACY	+/- 1%
RESOLUTION	0.1 %
READING ERROR	+/- 1%
SENSITIVITY	≤ 2%
MATERIAL OF CONST.	POLYCARBONATE
DIAMETER	54 mm (2.13")
LENGTH	31.2 mm (1.23")

ZYGGOT THM + ARC
ARC FLASH PREVENTION



ZYGGOT V5F TOH CONTROLLER HMI	
MODEL: V5FTA THM+ARC RELAY	
POWER SUPPLY	+24 VDC
RESOLUTION	1°C
NO OF SENSORS	UP TO 200 SENSORS
INPUTS	4 ANALOG 4 DIGITAL (12 TO 12 VDC)
OUTPUTS	2 ALARM TRIP (NO) 2 PROGRAMMABLE (NO) 1 OUTPUT TO SENSORS
COMMUNICATIONS	SERIAL MODBUS RTU ETHERNET MODBUS DEVICENET
SCREEN	COLOR, TOUCH SCREEN WVGA



GATEWAY	
MODEL: ZAG1R	
POWER SUPPLY	+24 VDC
HUMIDITY	5 TO 98%
RESOLUTION	1°C
NO OF SENSORS	UP TO 200 SENSORS
INPUTS	4 ANALOG 4 DIGITAL (12 TO 12 VDC)
OUTPUTS	2 PROGRAMMABLE (NC)
COMMUNICATIONS	(2) RS-485 MODBUS RTU ETHERNET MODBUS