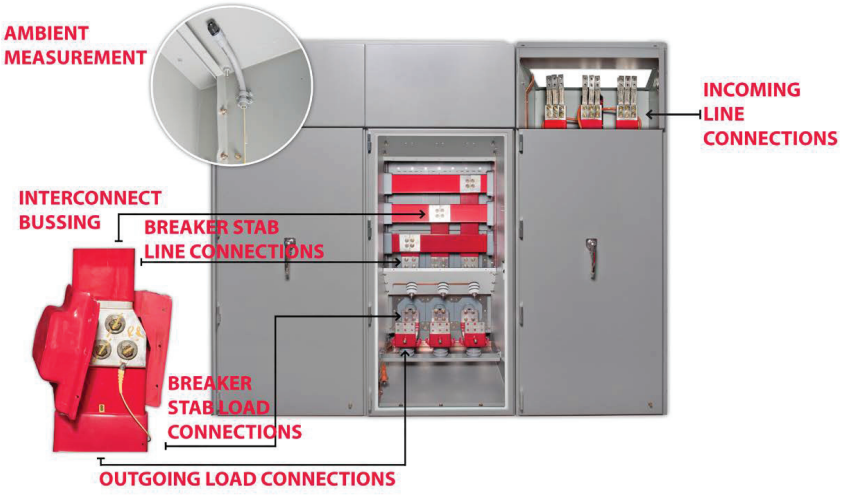
PT Guna Era Manufaktura



BRITESPOT THERMAL MONITORING

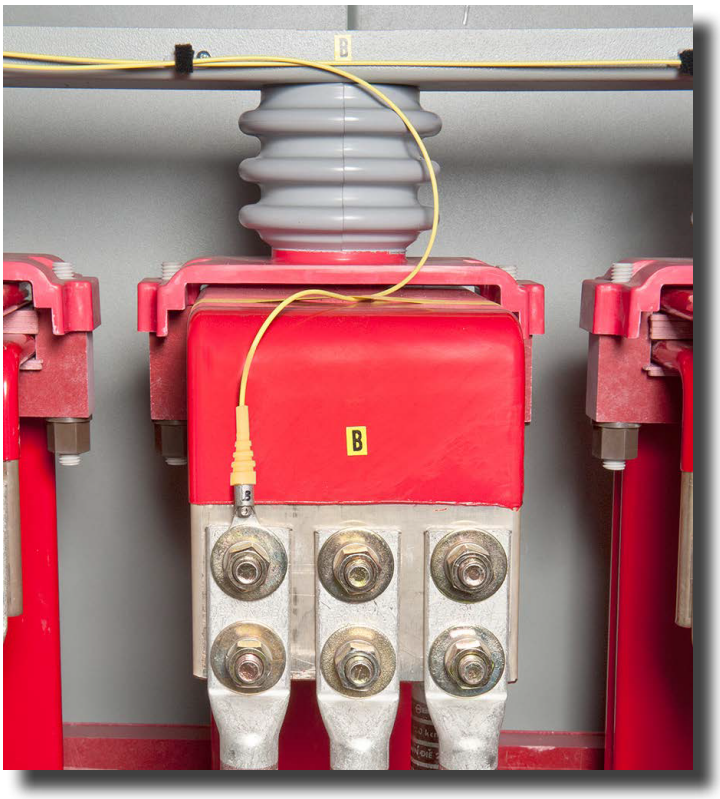
GAE – POWELL

2021

21.GAE.AMS–A04

BriteSpot™ Thermal Monitoring

INSTANT. ACCURATE. 24/7 FIBER-OPTIC TEMPERATURE MEASUREMENT



Superior to Periodic Testing

Electrically Non-Conductive Optical Fiber

Monitor Inaccessible Locations

Absolute Temperature Reading

Install in any Manufacturer's Equipment

THE NEED FOR CONTINUOUS THERMAL MONITORING

Increasingly stringent guidelines are causing modern industrial facilities to place more emphasis on personnel safety. As a result, many formerly accepted practices are no longer permitted. Electrical personnel are now prohibited from working inside energized equipment using everyday clothing and tools. They must identify the hazard/risk category of the work and comply with respective Personal Protective Equipment (PPE).

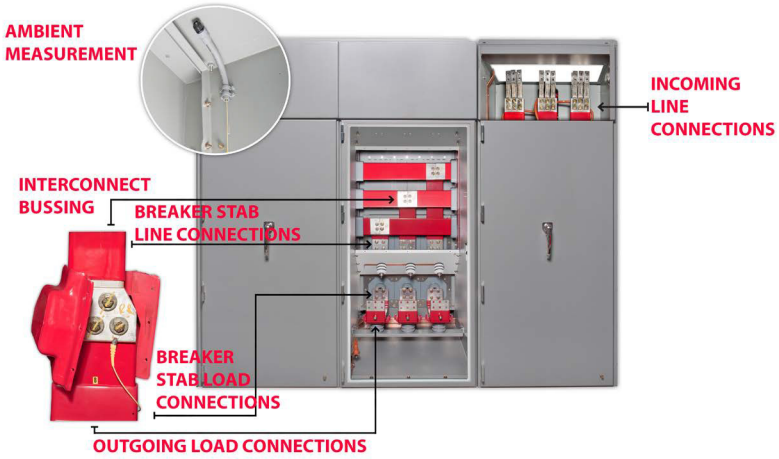
Embracing alternate technologies to execute hazardous tasks, without sacrificing the results, will aid in the advancement of workplace safety practices. Infrared (IR) scanning has long been the primary method for detecting thermal abnormalities caused by loose connections, imbalanced loads, overloaded circuits and a range of other issues in conductive environments.

Obtaining the most accurate assessment of an equipment's thermal condition requires a survey during peak load conditions. To do so with infrared scanning requires both opening doors and the removal of covers, barriers and insulating materials in order to expose the electrical conductors. Since most facilities prohibit personnel from this type of access without the equipment de-energized, the data is inaccurate or unobtainable.

POWELL MEETS THE NEED

Powell's BriteSpot Thermal Monitoring provides those working with electrical equipment the capability of a direct-connect, real-time method of temperature monitoring in inaccessible locations. All while providing for the maximum safety and protection of personnel and equipment.

The unique probe design secures to a bolted connection point without interfering with most standard construction and insulating practices. Once mounted on bus bars, splices, circuit breaker stabs or field terminations; temperatures are logged in real-time and internally stored. If an abnormality is identified, a quick remedial effort could save costly equipment damage and process downtime.



OTHER APPLICABLE EQUIPMENT TYPES

- ANSI or IEC
- Low Voltage Switchgear
- Low and Medium Voltage MCC
- Bus Duct
- DC Switchgear
- Rectifiers
- Load Break Switches

BRITESPOT ™ SYSTEM COMPONENTS

- A complete BriteSpot system consists of three major components: A conversion module, a set of three (3) fiber-optic probes and ring lugs in 1/4", 3/8" or 1/2" sizes. Or choose your own attachment using any #6 AWG fixture.
- Polymer Optical Fiber (POF) - The polymer optical fiber is ideal for conductive environments as it can be routed around live components without dielectric degradation of the equipment. The fiber is robust, requires no special training and is easily cut to any length with the supplied trimmer.
- Conversion Modules - The conversion module provides the internal control signals, interface telemetry and light generation/detection necessary to calculate thermal values. Locate the units inside low voltage compartments, transition sections or external enclosures.

The Sentry™ Control Unit is a 24-point modular platform best for concentrated monitoring with limited space. User interface settings and stored data are accessible via USB or RS 485 network.

The BriteSpot G3 is an ethernet-based monitoring module for 9 to 18 points. The 9-point module can include a LCD local display and stored data is accessible via ethernet or RS 485 network. It has an alarm dry-contact output available for use in driving a lamp, beacon or other device for local indication of a high temperature.

HOW DOES IT WORK

The basic principle behind BriteSpot is our patented technology of light transmission over fiber, tunneled to the probe and reflected back. As temperatures change, so do the probe properties. The conversion module interprets this information to determine an absolute, non-compensating temperature value.

PRODUCT SPECIFICATIONS AND FEATURES

	Sentry with BriteSpot App Cards	BriteSpot G3
Conversion Module Part Number	SEN6P1C10X0XB6B6 (12 Points) SEN6P1C1B6B6B6B6 (24 Points)	BSG3.18, BSG3.9, BSG3.9S Kit Part Number: (10M fiber) BSG3.18KIT, BSG3.9KIT, BSG3.9SKIT
Temperature Range	-20°C to 120°C (-4°F to 248°F)	
Resolution	1°C (1°F)	
Accuracy	+/- 2°C (+/- 3.5°F)	
Sensor AC Withstand	80kVAC (8" gap)	
Alarm Relay	None	2A/250V
Communication	Modbus RS 485 (Standard)	Modbus RTU, Modbus TCP/IP, Ethernet IP
Power Requirements	120-250VDC or 120-250VAC, 50/60Hz	24VDC, 0.2A
Size	6.5"H x 5"W x 4.5"D	7"H x 3"W x 1.25"D
Fiber Lengths	7m (PN:BSL007), 10m (PN: BSL010), 15m (PN:BSL015)	
Monitoring Points	12, 18 or 24 per chassis	9 or 18 point modules
Data	4Mb Internal Memory (30 min polling yields ~ 20 months of data or 4 sec updates over RS 485)	16Mb Internal Memory (up to 100 years of monitoring)
Calibration	None	
UL/CSA Listed	Yes	

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PT GUNA ERA MANUFAKTURA

Jl Jati Raya Blok J2 No 1-3, Newton Techno
Park, Lippo Cikarang, Bekasi 17550
Indonesia

T +62 21 8990 7620
F +62 21 8990 7959, 897 4364

E info@gae.id
W www.gae.id