

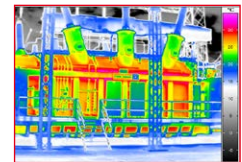
IR Substation Monitoring

Thermography-based Substation Monitoring System

System Description

The IR Substation Monitoring (IRSM) System uses infrared (IR) technology to monitor the temperature of substation components to secure the reliability of substation. Thermography cameras in combination with visible camera and pan-tilt head observe the substation area and thus allow predictive maintenance.

The temperature measurements are made fully automatically without the need of any manual interaction. IRSM automatically raises warning and alarm if an adjustable temperature threshold is passed. This prevents dangerous substation component failures and saves the reliability of the entire substation. IRSM automatically tracks the temperature development of different substation elements. This allows reducing maintenance costs, failures and unplanned outage of substation. IRSM comes with highly reliable components in a flexible structure and thus, is easily adaptable to the different situations and operational modes in substations.



System Features

- Full automatic operation
- Reliable alarm release at defined pre- and main alarm limits
- Merging of IR- and VIS-image for better orientation
- Temperature trend recording and analysis
- Customized system alignment and adjustment
- Parameterization, supervision, operation, display, evaluation and playback in the IRSM software
- Decentralized monitoring of system status and measured values
- Recall of all recorded data for comparison and optimisation
- Easy to operate data presentation in the substation network
- Remote access from Master Control Center



Benefits of the IRSM System

- Complete automatic thermographic temperature screening of substation on 24/7 basis
- Early detection of equipment failures with maximum range and highest resolution (640 × 480) / (1,280 × 960) IR pixels
- Reduction of maintenance costs, failures and outage of substation
- Saves investments and long term operating ability of your substation
- Flexible structure for customized adaption to your operational modes

Headquarters

InfraTec GmbH
Infrarotsensorik und Messtechnik
Gostritzer Straße 61 – 63
01217 Dresden / GERMANY

Phone +49 351 871-8630
Fax +49 351 871-8727
E-mail thermo@InfraTec.de
www.InfraTec.eu

USA office

InfraTec infrared LLC
5048 Tennyson Pkwy.
Plano TX 75024 | USA

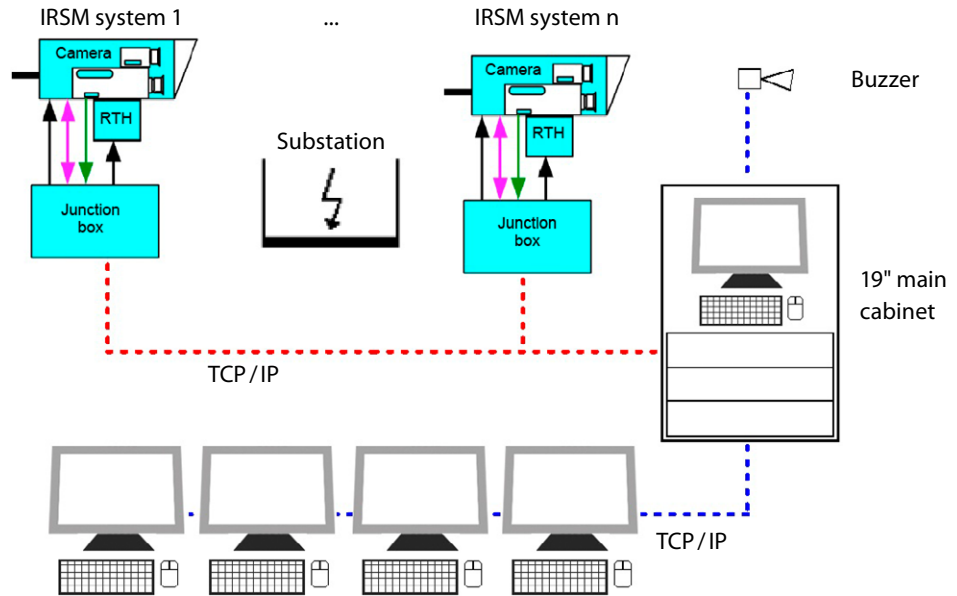
Phone +1 844-226-3722 (toll free)
E-mail thermo@InfraTec-infrared.com
www.InfraTec-infrared.com

IR Substation Monitoring

Thermography-based Substation Monitoring System

System Structure

IR-cameras + VIS-cameras built in protective housing on pan-tilt head with junction box



Parameterization, supervision, operation, display, evaluation and playback on standard PC at different sites and levels

Construction / Design

- Reliable 19"-industrial standard main cabinet
- Protective housing and pan-tilt head designed to withstand the harsh environmental conditions
- VarioCAM® hr head infrared camera with (640 × 480) / (1,280 × 960) IR pixels guarantees long-term exact and reliable temperature measurements
- Nearly maintenance-free, no wearing parts
- Decentralized installable components (IR-cameras, VIS- cameras, PC, alarm unit), fiber optic cable for interference-free data transmission
- TCP /IP based flexible structure allows customized adaption to the specific substation situations
- Easy to use IRSM software allows flexible customization

