



## UltraTEV Alarm™

the Partial Discharge (PD) activity early warning system

Continuous monitoring of substation switchgear. Identifies faults and safety issues BEFORE they lead to failures

[www.eatechnology.com](http://www.eatechnology.com)

**PRODUCT CODES:**  
UTA1, UTAH, UTAH-GPRS

Delivering Innovation in Power Engineering



## benefits

- Early warning of faults prevents failures
- Enables timely interventions when maintenance is required
- Warns personnel if switchgear is in a dangerous condition
- Excellent cost/benefit justification

## features

- Effective continuous monitoring with both ultrasonic and Transient Earth Voltage (TEV) sensors
- Multi-node sensor units can monitor 30+ assets simultaneously
- Receive alerts anywhere, via email or text message
- Simultaneously measures local humidity and temperature conditions
- Central hub unit LED indicators provide immediate indication of PD problems

## operation

- Sensor Nodes continuously monitor PD activity on the surface of assets in the form of TEV effects
- Microphones listen for PD activity inside assets in the form of ultrasonic emissions
- Nodes are linked to the alarm hub which indicates when PD activity in one or more assets is at critical level
- LEDs on the individual sensor nodes indicate which assets are affected
- Audible/visible alarms can be mounted outside the substation for added safety
- Can be used as a portable system or installed permanently

# specification

## UltraTEV Alarm™

ALARM NODE	
Signal Input	Built in TEV sensor plus input for external ultrasonic sensor
TEV Pass band	3 – 80 MHz
Ultrasonic Centre Frequency	40 kHz
INDICATORS	
Power/Running LED	Bi-colour Red/Green LED
Current TEV Alarm	Bi-colour Red/Green LED
Historic TEV Alarm	Bi-colour Red/Green LED
Current Ultrasonic Alarm	Bi-colour Red/Green LED
Historic Ultrasonic Alarm	Bi-colour Red/Green LED
CONNECTORS	
Power and Alarm Signals	2 off four-way terminal block
Ultrasonic Sensor	Lemo socket
CONTROLS	
Reset Input	Recessed Push-button
Test Signal	Recessed Push-button
OUTPUTS	
Alarm Signals	Pulse Code Modulation
DIMENSIONS	
Size	105 x 105 x 50 mm
Weight	0.26 Kg
POWER SUPPLY	
Low Voltage DC	24V 36 mA
ENVIRONMENTAL	
Operating Temperature	0 - 55°C
Humidity	0 - 90% RH non-condensing
IP Rating	53
EMC	
Safety Class	SELV
EMC Immunity	Industrial Levels
EMC Emissions	Domestic Levels

# accessories

## and options

### Hub with GPRS Option

Receive condition alerts instantly via SMS text messages or email with this GPRS-enabled version of the hub

### Hub without GPRS Option

Volt-free contacts for optional SCADA connection

### Additional Sensor Nodes

Built in TEV sensor complete with ultrasonic sensor

### Ultrasonic Node

Works directly with the Alarm Hub monitoring ultrasonic PD emissions only

### Short Microphone with Magnetic Base

### Long Microphone with Magnetic Base

### Close-Coupled Ultrasonic Sensor

### Alarm Node Calibration Checker™

Instantly checks that your Alarm Nodes are operating within specification

### Portable 10-Node System Case

Waterproof, robust, pull--along case with foam inserts

To find out more, why not see the Podcasts at: [www.eapodcasts.com](http://www.eapodcasts.com)

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