



# UltraTEV Alarm™

## The PD activity early warning system

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

### 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 TEV sensors.
- Multi-node sensor units can monitor 100+ assets simultaneously.
- Simultaneously measures local humidity and temperature conditions.
- Central hub unit LED indicators provide immediate indication of PD problems.
- Receive alerts anywhere, via email or text message.

### operation

- Sensor Nodes continuously monitor PD activity on the surface of assets, in the form of transient earth voltage (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.
- LED's on the individual sensor nodes indicate which assets are affected.
- Audible/visible alarms can be mounted outside the substation for added safety.
- Ability to utilise Ultrasonic Contact Probe for sealed cable boxes.
- Can be used as a portable system or installed permanently.



# specification

## UltraTEV Alarm™

# accessories and options

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

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### Hub with GPRS Option

Receive condition alerts instantly via SMS text messages or email, with this GPRS enabled version of the hub. Measures local humidity and temperature conditions

### 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. Can be daisy-chained. Used when additional Ultrasonic Measuring Points are required

### 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

### Ultrasonic Contact Probe

Detects surface discharge activity through ultrasonic vibrations

**PRODUCT CODE: UTA1 + UTAH**

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