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## ULD-40

### ULTRASONIC CORONA/ARCING DETECTOR

The ULD-40 is an ultrasonic detector designed for corona and arcing inspections for predictive maintenance in electric utilities.

#### Detection of Electrical Arcs and Corona Effects

Electrical arcs in the air and corona effects emit sounds and ultrasounds. The role of the ULD-40 consists of capturing emitted ultrasounds and of translating them into the audible range. The ULD-40 accurately pinpoints and identifies corona effects and arcs that may be encountered on any type of high voltage installation simply by scanning around the suspected area. The ULD sensor is positioned in a directional amplifier cone that is integrated in the front of the enclosure. An external parabolic sensor, which enables the user to pinpoint electrical defects from a longer distance, is also available. It easily connects on the side of the ULD and what's more, it is equipped with a laser pointing device which enables pinpointing the ultrasound emission source. The dismountable parabolic antenna and the small dimensions of the ULD facilitate its use in the field and allow access to any type of installations.

*Close up of the external sensor and headset connections*



*Detail of the integrated sensor and amplifier cone.*

#### Advantages

Insulation flaws are an important factor in wear, efficiency loss and lifespan reduction of an electrical network. Nowadays, it is important to be equipped with good tools in order to reduce operational costs and save valuable time. The ULD-40 enables making remote acoustic inspections with great accuracy. The equipment is user friendly and does not necessitate any training whatsoever. One of the advantages of the ULD-40 is that it works just as well in noisy environments. The applications of the ULD-40 are countless and make it a global leak detection tool: a must for any prevention / maintenance department.

#### Main Applications

- Electrical Inspections: corona effect localization, arcs on shields.
- General Mechanical Inspections: motors, compressors, gears, bearing monitoring.
- Gas, air, pressure leaks, leak detection without pressure or vacuum.
- Aerospace Sector: airplane doors and windows, air tightness.

The ULD-40 is used in many sectors: electricity, aerospace, the chemical and petrochemical industries, manufacturing, pulp and paper, textile, waste water processing, etc



*Application example: to detect corona effects on overhead electrical insulators.*

### Technical Specifications

- 7-segment display in relative dB-mode
- 90 dB dynamic range display
- Built-in sensor with 5 degrees conical directivity
- I-Integrated Speaker
- Center frequency 40 KHz
- Bandwidth 38kHz-48kHz
- Audio output for headset or PC recording
- Rechargeable Lithium-ion battery
- 4 hours autonomy
- Rugged Delrin-made casing
- Detects .005"(.127 mm) dia. leak @ 5\_psi (.34 bar) at a distance of 25 ft (8m)



### Options

- Headset
- Parabolic sensor with 1 degree directivity and laser pointer
- Transportation case

