

Ultrasonic Corona Detector

Model UD-1

Testing 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 UD-1 is an ultrasonic detector designed for corona effect and arcing detection for predictive maintenance in electric utilities. Available with a variety of accessories, this instrument is a cost-effective must for any prevention plan.



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 UD-1 enables making remote acoustic inspections with great accuracy. The equipment is user friendly and does not necessitate any training. One of the advantages of the UD-1 is that it works just as well in noisy environments. The applications of the UD-1 are countless and make it a global leak detection tool: a must for any prevention and maintenance department.

- **Works** just as well in **noisy environments**
- **Countless** number of **possible applications**
- **Battery operated** for maximum flexibility
- **Easy to use**
- **Parabolic sensor** with **laser** for optimal pinpoint testing

Detection of Electrical Arcs and Corona Effects

Electrical arcs in the air and corona effects emit sounds and ultrasounds. The role of the UD-1 consists of capturing emitted ultrasounds and translating them to the audible range. The UD-1 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 UD-1 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 UD-1 and is equipped with a laser pointing device which enables pinpointing the ultrasound emission source. The dismountable parabolic sensor and the small dimensions of the UD-1 facilitate its use in the field and allows access to any type of installation.



Specifications

Dynamic Range	96 dB
Center Frequency	40 kHz
Bandwidth	38 kHz to 48 kHz
Output Frequency for 40 kHz	2.4 kHz
Sampling Frequency	120 kHz
Battery Type	Lithium Ion
Battery voltage and current	3.6 V 750 mA
Recharging Voltage	5 V
Autonomy	4.0 hrs
Charge time	2.5 hrs
Power consumption	160 mA
Sensitivity	Dia. Leak 0.005" @ 5 psi 10 feet Dia. Leak 0.125 mm @ 0.35 Bar 3 meters
Audio output impedance	32 ohm
Audio output level	1 Volt peak-peak
Audio output center frequency	2.4 kHz

Standard Accessories

- UD-1 instrument (Battery included)
- Battery charger
- Transportation hard case
- User Manual
- Calibration Certificate



PHENIX
TECHNOLOGIES

WORLD HEADQUARTERS

Phenix Technologies, Inc.
75 Speicher Drive
Accident, MD 21520 USA
Ph: +1.301.746.8118
Fx: +1.301.895.5570
Info@phenixtech.com

BRANCH OFFICES

Phenix Systems AG
Riehenstrasse 62A, 4058 Basel, Switzerland
Ph: +41.61.383.2770, Fx: +41.61.383.2771, Info@phenixsystems.com

Phenix Asia
Zhong Cheng Rd, Sec 1, No 177, 2F, Taipei 11148 Taiwan
Ph: +886.2.2835.9738, Fx: +886.2.2835.9879, Info@phenixasia.com

ISO
9001:2008
Compliant

