

The R-2100 is a portable microprocessor based instrument that allows one to solve the most complex task of HV insulation diagnostics using partial discharge analysis. It is designed for those users who want to solve and diagnose the most critical PD events.

The system comes in a standalone version as well as in a kit form. The kit contains many types of sensors that can be used for various applications. The sensors can also be purchased separately.



The R-2100 is designed for research laboratories, manufacturer test floors and in energized high voltage substations. The instrument has 12 PD channels, one noise channel and one power frequency reference channel. All PD channels have identical isolated input circuitry, protection and input high pass filters.

The frequency band is from 0.5MHz to 10MHz. Advanced signal processing techniques are utilized to eliminate noise that occurs in high noise environments such as in high voltage substations.

One unique feature built into the analyzer is a reflectometer. Use of the reflectometer will assist in locating of a defect, such as in a long cable. The instrument is capable to record up to three time domain reflectograms per channel with different trigger levels. The trigger level may be set to automatic adjusted to signal level or set to pre-determined by the operator.

PD data is stored in the form of phase-resolved pulse height distribution.



The instrument has 48 phase windows (7.5 Deg), and 32 magnitude windows with a single dynamic range of 75dB without gain adjustment. A full suite of software is provided that allows the user to download and store information on a PC and perform data analysis and presentation.

The R2100 is used when you need to perform an expert analysis for partial discharges. It can be used on system voltages from 2,300 volts to 800 kV. Applications include motors, generators, bus duct, switchgear, cables and transformers.

The instrument is protected in a light weight aluminum enclosure and has a LCD display with a hermetically sealed membrane keypad.

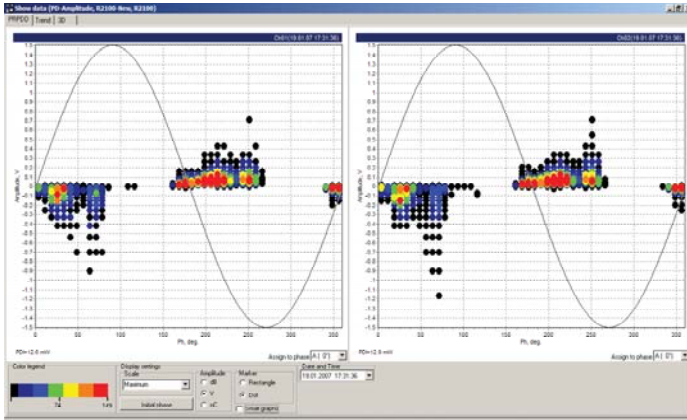


Electrical Diagnostic Innovations, Inc.

### Technical Specifications

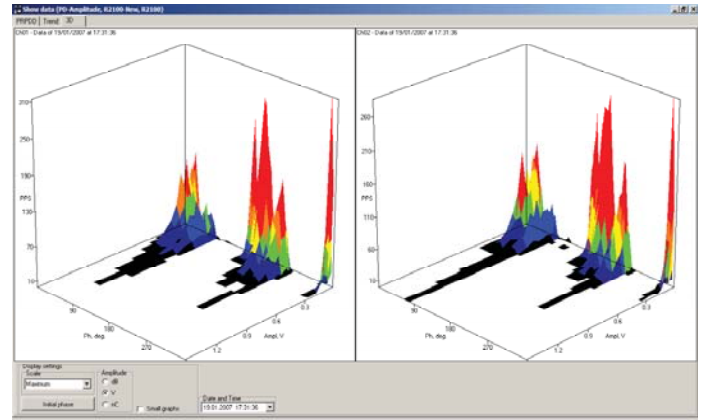
PD channels	12
Frequency band for PD channel, MHz	0,5-10,0
Dynamic range, dB with no gain adjustment	75 dB
Full measurement time, min.	2-30
Power frequency phase resolution, Deg	7,5
Reflectometer accuracy, m	+/- 2
Flash data memory, MB	32
User interfaces	RS-232 / USB
LCD resolution	320*240
Operating temperature, C	-20 - +45
Dimensions, mm	230 x 170 x 90
Weight in case without sensors, kg	12 lbs

The R2100 comes with our versatile suite of (Insulation Health Monitoring) IHM software. Screenshots of some of the screens are shown below.



Screenshot of the PRPDD plot

PRPDD plot is an effective way to analyze a type of partial discharge and PD assignment in three-phase voltage system and other PD characteristics.



Screenshot of the 3-D plot

This is a common way to present phase-resolved partial discharge data and investigate its structure.

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Through Innovation and Service*