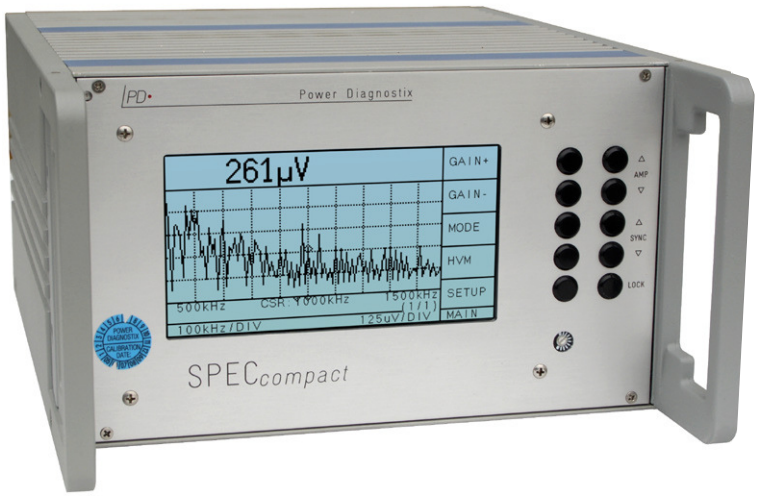
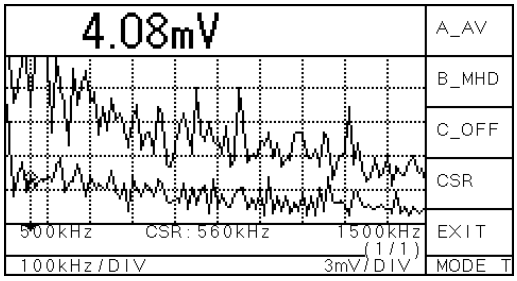
SPEC*compact*



The SPEC*compact* comprises a spectrum analyzer, a partial discharge (PD) detector and an RIV meter in one instrument. This combination enables PD measurements even with a large background noise e.g. in non-shielded test areas.

Observing the frequency spectrum of a harshly disturbed PD signal allows selecting frequency bands with less disturbances. Using this selected frequency for a PD acquisition gives a largely improved signal-to-noise ratio resulting in a clear pattern acquisition. The combination of spectrum analyzer and PD detector within one instrument opens a broad field of new possibilities when analyzing isolation defects even with large noise.



Frequency Spectrum

Spectrum Scan Display

The SPEC*compact* comes with one, three or eleven channels. A multiplexer allows to directly select the input signal.

There are three main display modes and a high-voltage meter (HVM) as optional function:

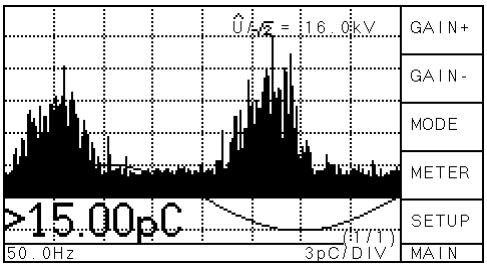
SPEC Mode

The SPEC mode shows the frequency spectrum of the input signal with a selectable span of up to 10 MHz. Three spectrum traces of the current input channel can be stored, compared and analyzed. A variable cursor serves to set the center frequency for the PD pattern acquisition.

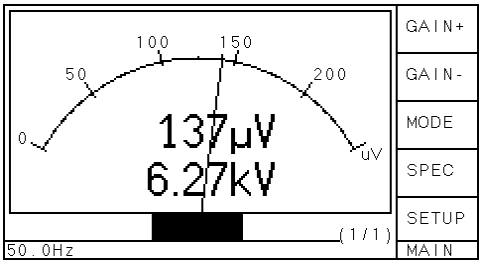
Measuring partial discharge within noisy environment.

SCOPE Mode

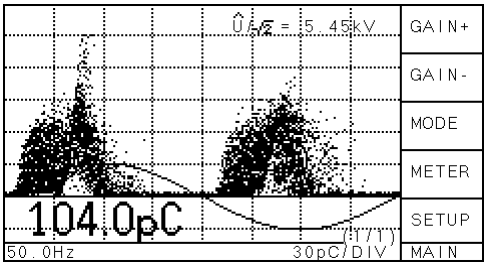
The SCOPE mode displays the PD pattern versus phase as known from the ICM*series*. The SYNC frequency ranges from 10 to 500 Hz. The PD activity can be shown as vertical bars or as dots to get a so called PD pattern.



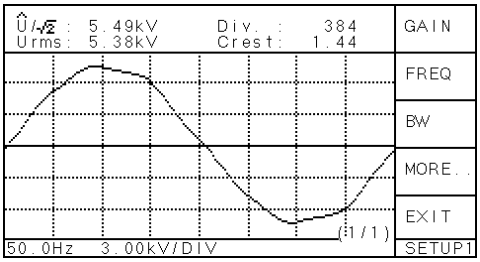
SCOPE Mode (NORM)



METER Mode (RIV & HVM)



SCOPE Mode (HOLD)



HVM Mode

METER Mode

The METER mode can be chosen to visualize the PD activity like older analog meters. Three modes are available for the charge value in 'pC' (FAST, NORM, IEC270) and one for the voltage value in 'µV' (RIV).

HVM Mode

The high voltage meter (HVM) is an optional function to observe the measured voltage waveform. The HVM shows the voltage supplied at the SYNC input. The input voltage is sampled in high resolution and one cycle is displayed as an oscilloscopic trace. Any distortion of the high voltage due to transformer core saturation or power frequency harmonics, for instance, are clearly identified with this display. The screen is automatically synchronized with the measured voltage and the amplitude deflection is controlled by an auto-range function.

Accessories for RIV measurement

The SPEC*compact* comprises a spectrum analyzer, a partial discharge (PD) detector and an RIV meter in one instrument. This combination enables PD measurements even with a large background noise e.g. in non-shielded test areas.

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