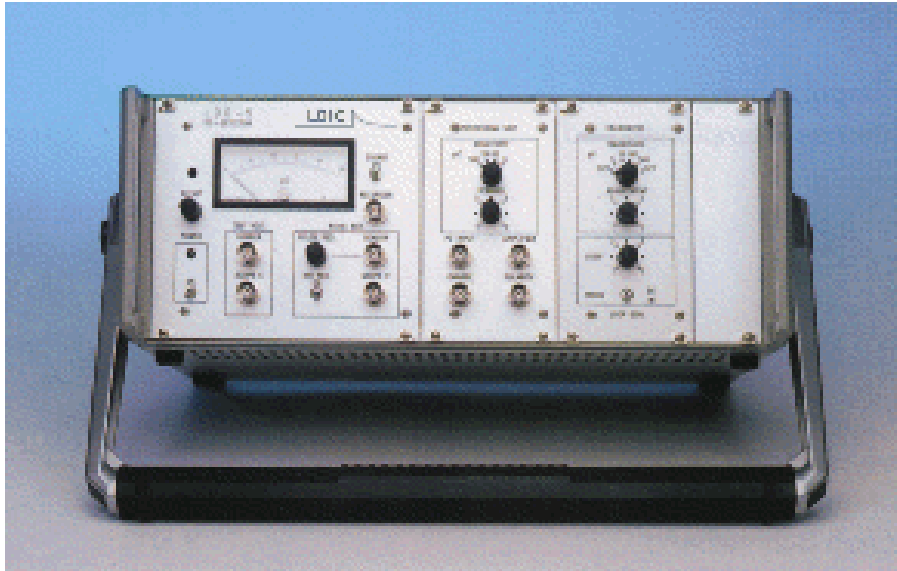


# PD DETECTOR

## LDD-5



The PD detector LDD-5 is designed for standardized measurements according to IEC 60270. This new development of LDIC bases on large experience in wide band PD measuring technique. The main fields of application of the LDD-5 are PD quality tests on HV equipment and fundamental PD studies in research and education.

Because of the additional mode for noise reduction the device is applicable not only in well screened test areas but even for on-site PD diagnosis tests.

### Standard features of the LDD-5

- Measuring the apparent charge according to IEC 60270
- High sensitivity down to 0.1 pC at an input impedance of 50  $\Omega$
- High pulse resolution performance up to 100 kHz
- Additional mode for noise reduction
- Option for computer-aided PD monitoring (LDD-5/C)
- High flexibility due to the modular design - plug-in's available for both,
  - wide-band processing (standard option)
  - narrow-band processing

The device is easy to handle. The achieved technical parameters are of highest standard. In this respect the wide band PD pulse processing, the high measuring sensitivity, the high pulse resolution performance and the additional mode for noise reduction have to be mentioned.

## Completing accessories

- plug-in for narrow-band processing
- Measuring impedance LDM-5
- Bridge impedance LDB-5
- Calibrator LDC-5
- Noise reduction filter LDF-5
- Optic receiver LDO-5

## Specification

|   |   |
|---|---|
| Minimum detectable apparent charge                          | 0.1 pC                                      |
| Maximum detectable apparent charge                          | 2500 pC (extendible by external attenuator) |
| Measuring ranges  | 5, 20, 100, 500 pC                          |
| Attenuation ratio   | 1 : 5                                       |
| Input impedance   | 50 $\Omega$                                 |
| Bandwidth of PD measurement                                 |   |
| • wide-band processing unit                                 | 300 kHz                                     |
| • narrow-band processing unit                               | 9 kHz                                       |
| Pulse resolution performance                                |   |
| • pulse repetition rate (error < 10 %)                      | > 100 kHz                                   |
| • double pulse distance (error < 30 %)                      | < 2 $\mu$ s                                 |
| Characteristics of the wide band amplifier                  |   |
| • Amplification factor                                      | > 30 dB                                     |
| • Dynamic range   | > 40 dB                                     |
| • Pulse rise time   | < 15 ns                                     |
| • Upper limited frequency                                   | > 30 MHz                                    |
| • Maximum pulse magnitude                                   | > 0.5 V                                     |
| • Noise level   | < 0.02 V                                    |
| Characteristics of the electronic integrator (at full load) |   |
| • Pulse rise time   | < 2 $\mu$ s                                 |
| • Pulse half time duration                                  | < 50 $\mu$ s                                |
| • Pulse magnitude   | > 4 V                                       |
| • Noise level at maximum sensitivity                        | < 0.1 V                                     |
| • Polarity  | unipolar and bipolar                        |
| Internal calibrator   |   |
| • Charge magnitudes   | 5, 20, 100, 500 pC                          |
| • Attenuation ratio   | 1 : 5                                       |
| • Pulse repetition rate                                     | 500 Hz approx.                              |
| Voltage supply  | 220 V, 50/60 Hz, 50 VA                      |
| Dimensions (without handle, in mm)                          | 350 x 270 x 140                             |
| Weight  | 5.5 kg                                      |