

PDC-Phantom-1000XE

Manual

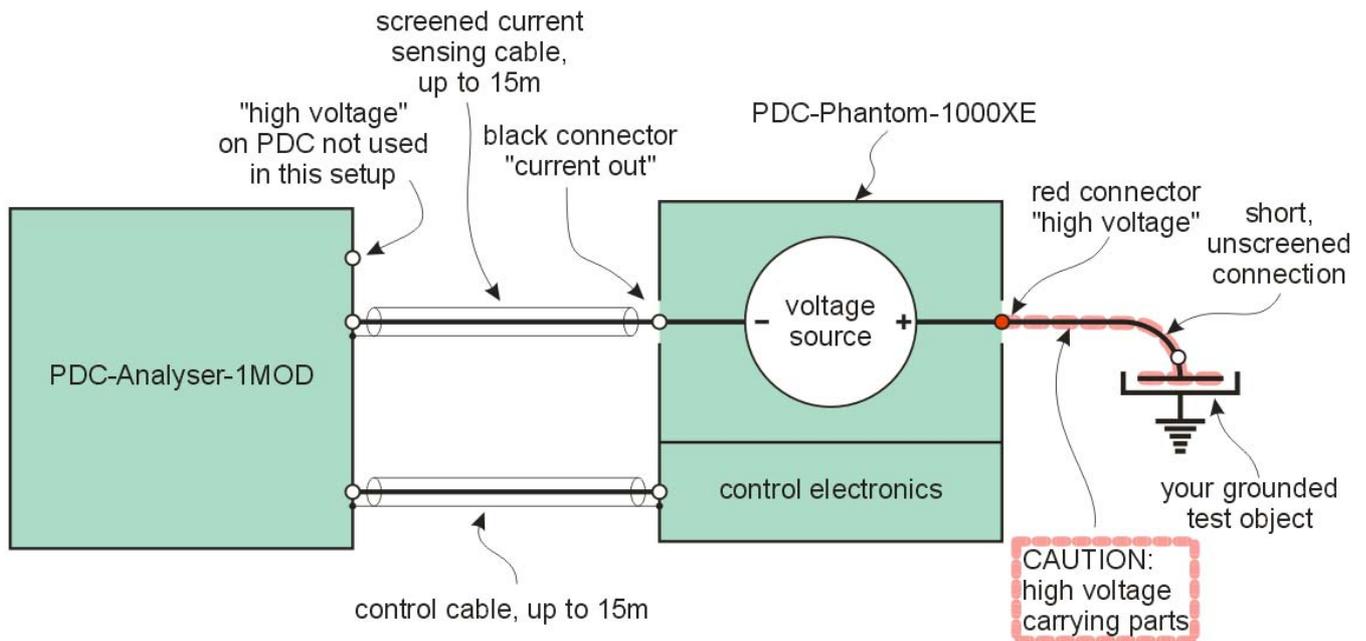


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Description of PDC-Phantom-1000XE

The **PDC-Phantom-1000XE** voltage source is a “flying voltage source” for performing measurements on grounded objects. The insulation level between the control electronics and the voltage source is extremely high such as not to compromise the pA resolution of the PDC-Analyser-1MOD. This **PDC-Phantom-1000XE** must be located as near as possible to the connection of the object to be tested. If it was build into the PDC, the properties of the cable connecting the PDC to the test object would be superimposed to the properties of the test object. Also, be aware, that the cable from the Phantom to the test object is part of the system under assessment; any leak currents to ground or shifting electrostatic charges will be recorded by the PDC.



Operating the PDC-Phantom-1000XE

Before starting any cabling or changes to an existing cabling, the **PDC-Analyser-1MOD** should be in the off state. As the **PDC-Analyser-1MOD** powers the **PDC-Phantom-1000XE**, no high voltage will be present. This will prevent operators from touching excessive high voltage and equipment from being damaged. After setting up the connections as shown above, the **PDC-Analyser-1MOD** can be turned on. The green lamp “Phantom powered” on the **PDC-Phantom-1000XE** should light up, but not the four red “high voltage” warning lamps. Now, the program “PDC measurement” can be evoked. The external Phantom source must be chosen as voltage source for the measurement and the polarisation voltage can be set from 30 to 1000 V. Then execute the measurements as if the internal voltage source was used. Make sure, noone can come within reach of the test object or even touch any conductor carrying high voltage. At an ongoing measurement, people or objects moving around at vicinity of the high voltage connection should be avoided, because shifting electrostatic charges may produce currents of the same order of magnitude than the polarisation and depolarisation currents to be recorded.

CAUTION

- Make sure, nobody can approach or touch cables, equipment or electrodes possibly carrying high, dangerous voltages.
- This instrumentation must be run in all cases by experienced operators.
- Do not make any changes in the cabling as long as the PDC-Analyser-1MOD is on.