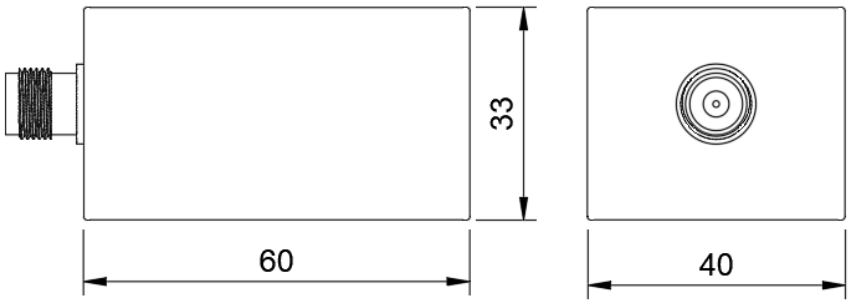
PDS-609H Partial Discharge (PD) Sensor



Frequency range：3～100 MHz

Transfer impedance： 5～10 mV/mA

External Dimensions：60 (L) x 40 (W) x 33 (H) mm

Output Impedance：50 ohm

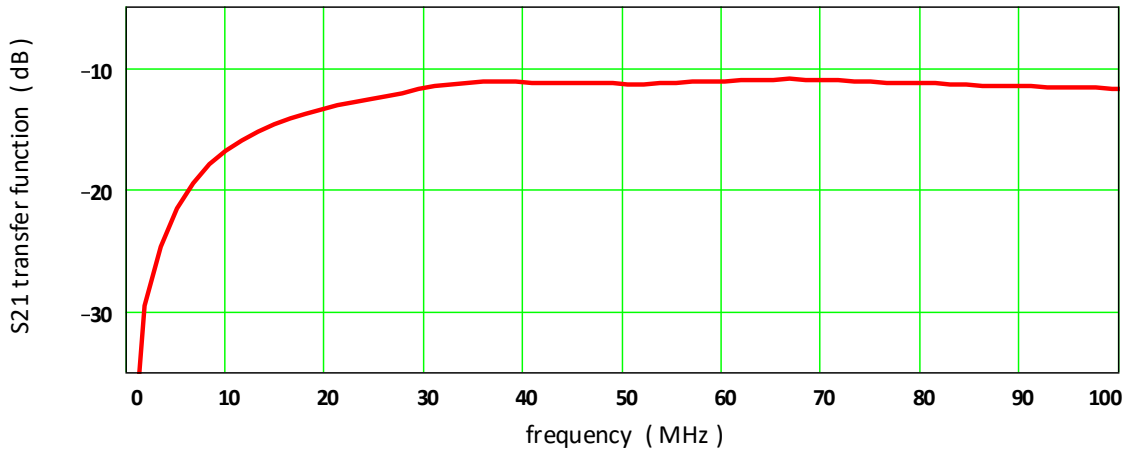
Output Connection Options: BNC coaxial for use in PD surveys
TNC coaxial for permanent monitoring installations

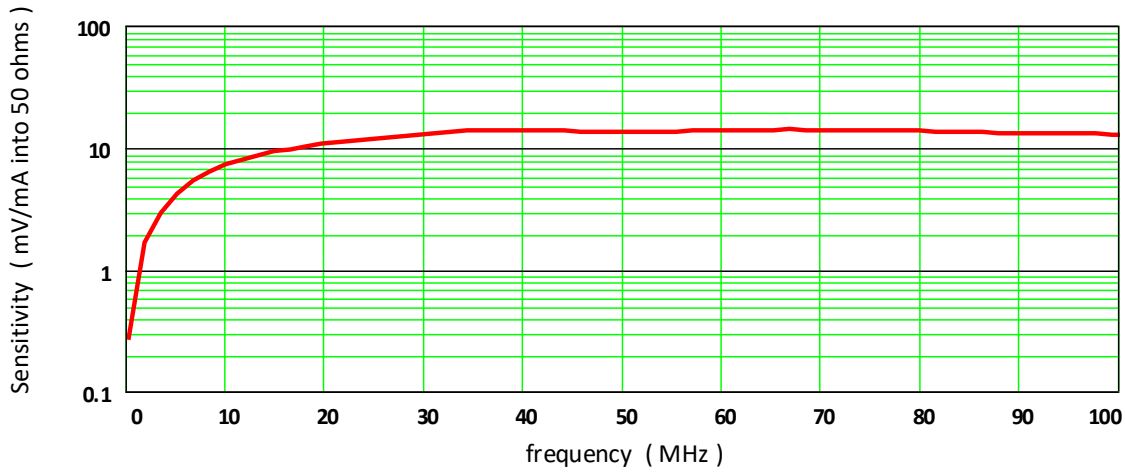
Weight: 200 g

This sensor was developed specifically for PD monitoring applications at MV and HV cable terminations, joints and bushings. The PDS-609H is a **transient magnetic field** sensor that can withstand extremely high levels of power frequency current flow (several kA) in the primary conductor without compromising PD sensitivity (which would occur with a conventional clamp-type HFCT due to magnetic saturation). The sensor features excellent immunity to external EMI. The device is compact and easy to retrofit safely to existing high voltage equipment, usually without the need for an outage.

PDS-609H is optimised for response to PD in the HF band and is therefore compatible with all PD monitoring equipment designed for use with HFCTs. The sensor is available with either BNC or TNC coaxial output connectors and its housing can also be customised to match specific installation and mounting requirements.

Typical Frequency Response of the PDS-609H





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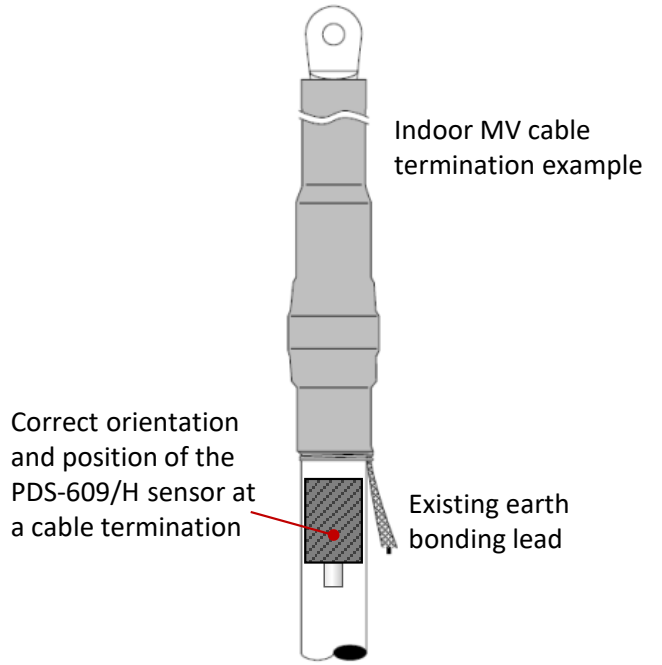
Sensor Mounting and Orientation at Cable Terminations



Securing the sensor:

The PDS-609H sensor is easily attached to the test object with cable ties according to the actual requirements. SDMT recommend using self-adhesive 38 mm x 38mm black cable tie mounts that are fixed to the top 60 x 40mm surface of the sensor.

Important:

Do not attempt to install the PDS-609H sensor directly onto uninsulated conductors or over areas with a stress control tube without first consulting SDMT to determine if this is allowable. The standard sensor is rated for 3kVac, but special insulation is available to withstand higher voltages.

The PDS-609H sensor is polarised so that the long axis of the sensor must be parallel to the direction of current flow.