

ULTRASONIC PD SENSORS

Acoustic Sensors AS75I and AS150I

The AS75I and AS150I are active sensors with very high sensitivity for measurements on GIS, transformer tanks, or cable joints. They come with a built-in 40 dB preamplifier and can be connected to the RPA1D, RPA1F, RPA1G, or directly to the AIAcompact, ICMsystem, ICMcompact, or ICMmonitor.

The sensor fixture SFX1 is suited to secure the acoustic sensors on a GIS. The magnetic sensor fixtures SFX2 and the sucking fixture SFX3 are for temporary mounting of the acoustic sensors on a transformer tank.



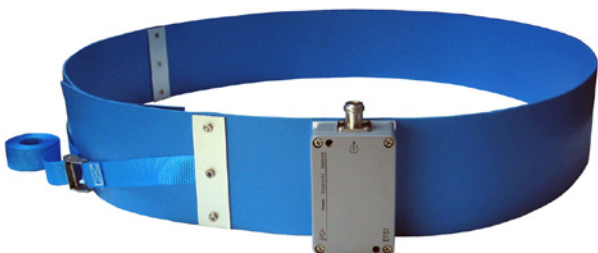
EXTERNAL RETROFIT UHF SENSORS FOR GIS

Window Sensor WS80 / 95 / 140

External window sensors are used to conveniently equip older GIS with UHF monitoring. Power Diagnostix offers such window sensors of different sizes to fit the inspection windows of older GIS. Here, the obtained results with sensitivity are comparable to embedded sensors, if the window has a diameter of 80 mm or higher. In case well matched, such external window sensors offer a sensitivity of few pC.

External Flange Sensor EFS1

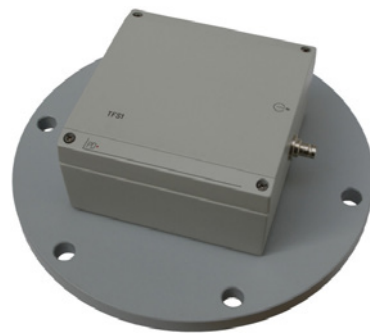
The external flange sensor EFS1 is a wide-band UHF antenna for PD detection on GIS and GIL. Since it is wrapped round the unshielded flange connection, the flange dimensions are required on order. With the N-connector it can be directly jointed with a UHF preamplifier like the UHF1 and UHF2 or the preacquisition unit FCU2. Power Diagnostix offers two different models, for permanent and for temporary installation.



UHF TRANSFORMER SENSORS

Valve Sensor TVS2 & Flange Sensor TFS1

UHF transformer sensors can be used to detect internal PD on power transformers in a frequency range between 300 MHz and 1 GHz. The UHF frequency range can be chosen under difficult on-site conditions, such as high impact of the measurements due to corona discharges or other disturbances within the typical HF range (100 kHz to 10 MHz). UHF sensors are suitable for retrofitting as well as for pre-installation. The sensitivity can be proven by injecting an impulse generator signal in the UHF range into the system. UHF PD signals can be used for PD pattern analysis as well as for triggering acoustic measurement systems, like the FOS4, for instance. Power Diagnostix provides the TFS1 for valve flanges and the TVS2 for oil valves. Both sensors can be modified and designed in accordance of special customer specifications.



CABLE SENSORS

Differential Foil Sensor DFS1

Besides the embedded coaxial sensor of cable accessories, external sensors can be applied to joints and terminations. Especially on cross-bonding joints differential foil sensors serve to capture partial discharge signals in elevated frequencies. Such foil sensors can be permanently installed for monitoring or temporarily applied for survey type measurements.

