

# USENS-B UHF PARTIAL DISCHARGE SENSOR



- **Rugged Design, Easy installation on the GIS Barrier**
- **High Dielectric and Built-in overvoltage protection**
- **Highly Sensitivity, and Wide band UHF PD Sensor**
- **Shielded to avoid electromagnetic interface**
- **IP66 rated, suitable for outdoor substation environment**
- **Customized to fit any size of barrier openings**

It is a well proven fact that Partial Discharge (PD) monitoring systems have saved many catastrophic failures into switchgears and GIS globally. Most of the new GIS installations are now coming up with pre-installed UHF PD sensors. For older GIS substations, with opening on the barrier's, Rugged Monitoring has developed the most sensitive UHF PD sensor.

USENS-B is an Ultra High Frequency (UHF) antenna that can detect smallest UHF frequencies emitted by the partial discharge (PD) activity. The sensors are customized to fit on different kind of GIS barrier openings. The sensors can easily be placed on the Barrier opening and then fixed with the belt coverage for PD monitoring.

Rugged Monitoring's USENS-B can be customized to fit into any size of GIS Barrier opening with higher response. The sensors come with built-in overvoltage protection and N-type connection. The sensors can relate to any UHF based PD monitoring systems regardless of manufacturers.

**High sensitivity, designed for reliability, Customised UHF technology based Partial Discharge sensors for GIS barrier openings.**

## Applications

- Periodic Partial Discharge Testing and Measurements
- Continuous Online Partial Discharge Monitoring
- High Voltage Testing after maintenance/ Overhaul
- GIS/ GIL PD Testing and Monitoring
- GIT (Gas Insulated Transformers) PD Testing & Monitoring
- Circuit Breaker PD Testing and Monitoring

## Benefits

- Higher sensitivity (-70dBm) ensure higher ROI of monitoring
- Wide frequency response, compatible with all PDM systems
- Easy installable, and High Dielectric strength, Safest Sensors
- Shielded Sensor, Noise Immunity
- Built-in overvoltage protection keeps the PDM electronics safer
- IP66 protection and rugged design, suitable for outdoor installations
- Leak proof sensors enables safety and 0% SF6 leakage
- Customized according to Barrier Opening and customer requirements

## Technical Specifications

UHF Frequency Response	200 - 3000 MHz
Sensitivity	up to -70 dBm
Average Effective Height over 500MHz – 1500MHz	06 mm+
Withstand Voltage	up to 1500 kV
Output	N-Type connector; Customized option available
Connector Circuit Impedance	50 Ω
Vibration Testing	Suitable for HV - GIS and Transformer applications
Ingress Protection (IP)	IP 66
Ambient (Operating Temperature)	-60 °C to +100 °C
Storage Temperature	-60 °C to +100 °C
Operating Humidity	95% humidity at 50 °C
Dimensions	Customized as per different GIS Barrier Types and Openings
Weight	Customized as per different GIS Barrier Types and Openings
Install Position	GIS / GIT / GIL Barrier Openings
Signal Cable	Very low attenuation UHF (Coax) cable

## Ordering Code

