

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

High sensitivity, designed for reliability, UHF technology based Partial Discharge sensors for GIS barrier openings. The sensors are customized to fit into any size of barrier openings.

Product Summary

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 barriers, Rugged Monitoring has developed the most sensitive UHF PD sensor.

USENS-B is an Ultra High Frequency (UHF) antenna that is capable of detecting 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 (optional) around the barrier. Their wider frequency response and higher sensitivity ensures higher GIS 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 comes with built-in overvoltage protection and N-type connection. The sensors can be connected with any UHF based PD monitoring systems regardless of manufacturers.

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

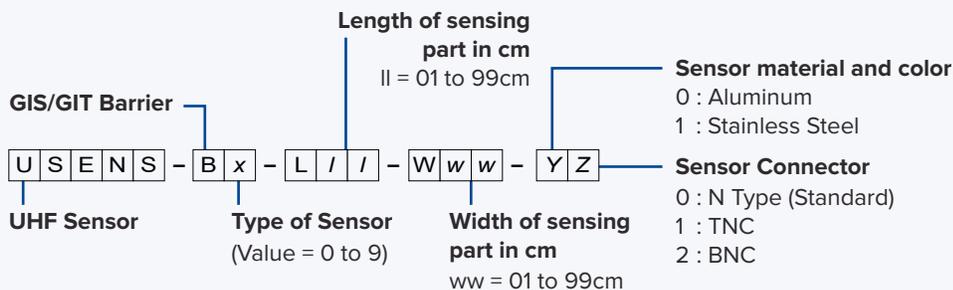
Benefits

- 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
- IP65 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	12 mm+
Min. 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



Rugged Monitoring Services

Rugged Monitoring provides customization of sensors, monitors & software. In addition we offer on-site commissioning services, maintenance contracts and technical support to all customers worldwide.



About Rugged Monitoring

Industry leading team of fiber optic experts with 100+ years of combined experience committed to delivering customizable solutions for challenging applications. We offer a range of reliable, high performance, customizable sensors and monitoring solutions that are immune to external influence.