

# HSENS-T

## Rugged and Robust design to measure partial discharges



The HSENS-T is a precision TEM sensor designed to detect high-frequency partial discharge signals accurately. Its robust design ensures reliable performance in critical monitoring applications.

The HSENS-T is an advanced Transient Earth Magnetic (TEM) sensor engineered to detect local and high-frequency PD pulses in metal-clad switchgear, power cable termination boxes, rotating machines, and power transformers. Combined with a High-Frequency Current Transformer (HFCT), it enhances PD diagnostics by distinguishing between internal and external partial discharge activities.

Designed for durability and reliability, the IP65-rated sensor incorporates integrated transient overvoltage protection to minimize the impact of transients during PD monitoring. The TEM sensor features strong magnets, allowing secure attachment to metal-clad switchgear walls, and forms a capacitive coupling with grounded metal surfaces to accurately detect transients caused by external PD at terminations.

The HSENS-T enables the detection of transient earth magnetic field or capacitively coupled signals from metal surfaces, delivering vital insights without disrupting operations.

## » Benefits

- Enhanced safety with overvoltage protection.
- High accuracy in noisy environments.
- Durable and low-maintenance design.
- Easy installation with magnetic attachment.
- Supports online and offline PD monitoring.
- Customizable to meet specific application and customer needs.
- Reliable and rigorously tested performance.

## » Features

- Transient Earth Magnetic (TEM) sensor for precise PD detection.
- Rugged and compact design with an IP65 rating for durability.
- Integrated transient overvoltage protection for enhanced safety.
- Strong magnets for secure attachment to metal-clad surfaces.
- RG223 high noise immunity cable ensures accurate signal transmission.
- TNC connector for a stable and reliable connection.

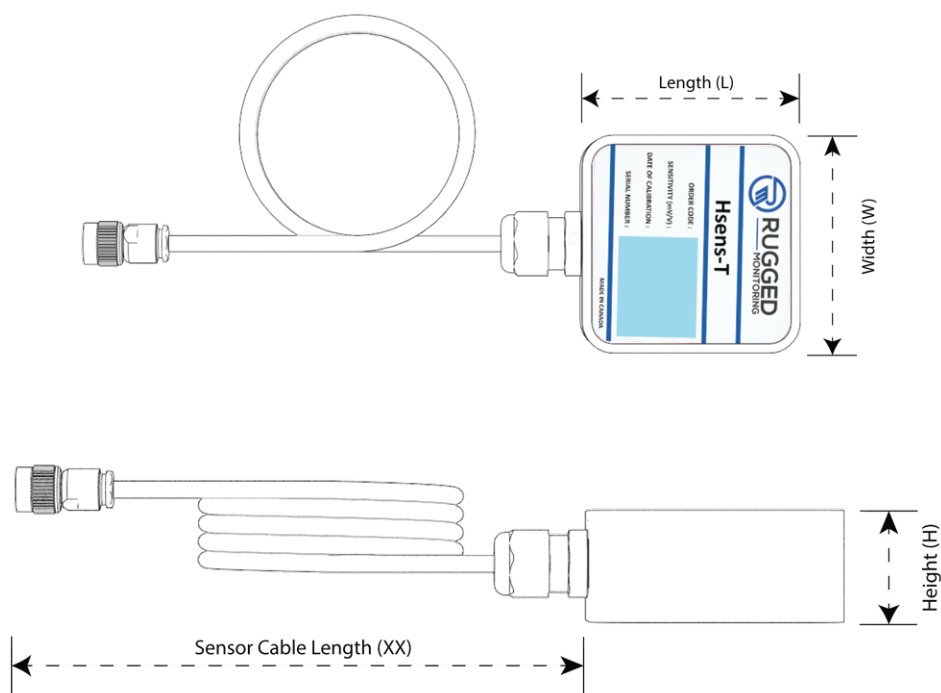
## » Applications

- Periodic online partial discharge (PD) monitoring.
- Offline PD measurements during high-voltage AC testing.
- Multi-point PD monitoring for enhanced diagnostic coverage.
- Suitable for power transformers, rotating machines, and AIS/GIS switchgear.
- Effective for cables, joints, and termination systems.

## » Technical Specifications

SENSOR	Type	Integrated magnets help it attach to metal clad switchgear
	Typical Frequency Response (-6dB)	1 MHz - 100 MHz
	Material	Rugged Plastic (Black), Other options available
SIGNAL CABLE	Type	RG223
	Connectors	TNC Female connector
VIBRATION TESTING (IEC 60068 - 2 - 6)	20 sweeps of 9G force in 6 degree of freedom	
INGRESS PROTECTION (IP) (IEC 60529)	IP65	
TEMPERATURE	Ambient	-30°C to +70°C
	Storage	-40°C to +85°C
DIMENSIONS	70mm (L) x 70mm (W) x 33mm (H)	
CUSTOMIZATION	Based on customer requirement	

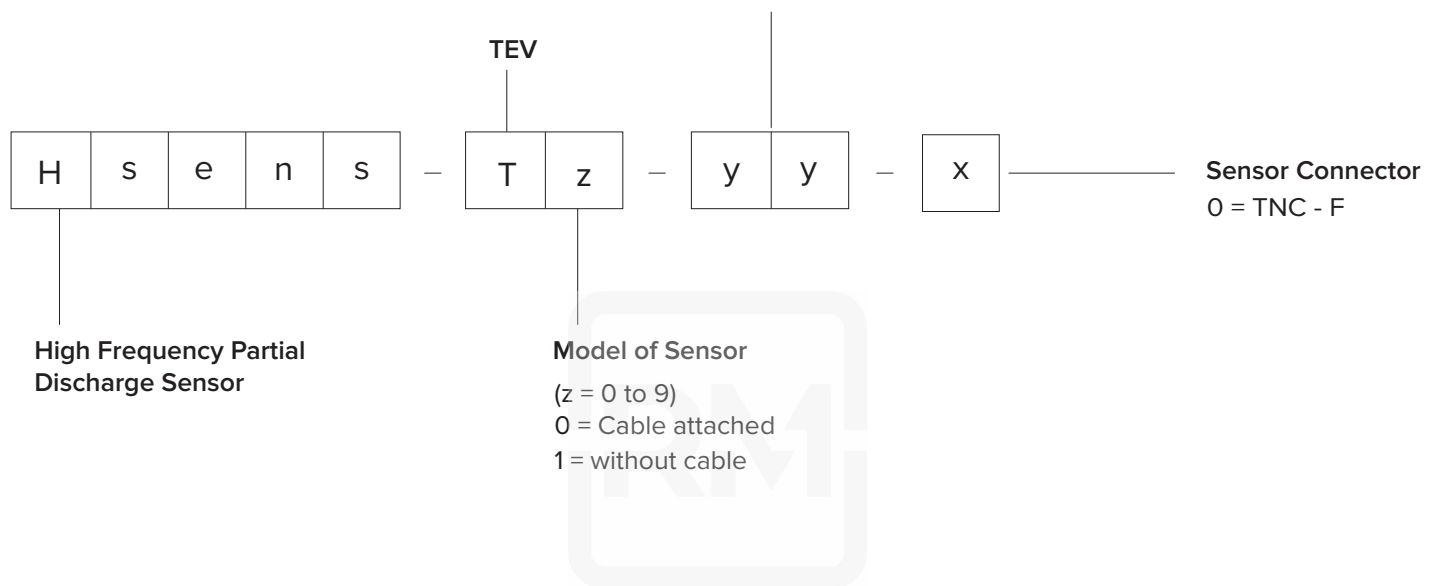
## » Product Drawing



## » Ordering Code

### Sensor Cable Length Not shown if T1 model

05 = 5 m (Standard)  
10 = 10 m  
15 = 15 m  
20 = 20 m



## CERTIFICATIONS



ISO 9001:2015



ISO 14001:2015



ISO 45001:2018



Lloyd's  
Register



Atex  
Certification



NIST  
Certification

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