

# VPDS Series

## Environmental Partial Discharge Sensor Port



### Fast and Accurate Readings

With a 3.5 mm headphone the user can simply open the cover, plug in, listen and record the sound inside the cabinet without worrying antagonistic ultrasound from the surround area.

### Safety Without PPE

The VPDS gives inspectors the ability to safely perform closed-panel energized inspections, removing the need to open the gear and dress in full, heavy PPE.

### Save Time and Money

With the installation of these ports the inspector has the ability to use a single point to listen into the cabinet instead of tracing the seam and removing any diffraction of signal that may occur.

The VPDS Ultrasound Sensor is the most effective and safest way to perform ultrasound inspection on energized electrical assets from low to high voltage. Ultrasound electrical inspection has been relegated to scanning the seams and opening of electrical assets for years. Often times the inspector runs into antagonistic ultrasound from other source which limits the ability of the inspector to achieve the critical angle of the incident wave necessary to get the best sound wave for analysis. To improve the effectiveness and safety of the ultrasound inspector, IRISS designed the first Ultrasound Sensor that is mounted in the panel with a transducer on the inside facing the gear. With its 3.5 mm headphone jack, almost every make and model of ultrasound testing devices can plug in and listen to the gear safely from the outside. This allows the inspector to quickly identify the existence of potentially hazardous faults such as corona, treeing, tracking, delamination of windings, and loose connections.



# Specifications

Model	VPDS
<b>General Specifications</b>	
Overall Dimensions	6.5 cm (2.6 in) Ø
Overall Thickness	2.6 cm (1.0 in)
IP/ NEMA Environment Rating	IP65 / NEMA 4
Operating Temperature	-40°C (-40°F) to 273°C (523°F)
Body Material	UL 94 5VA Nylon (switchgear-grade plastic); -40°C (-40°F) to 273°C (523°F); aluminum cover
Gasket Material	UL 94 5VA TPE; -40°C (-40°F) to 273°C (523°F)
Hardware Material	316 Stainless Steel
Voltage Range	Any
Automatically Grounded	Yes
<b>Ultrasonic Receiver Specifications</b>	
Center Frequency	40.0± 1.0KHz
Bandwidth (-6dB)	2.5KHz
Capacitance at 1KHz ±20%	2400 pF
Max. Driving Voltage (cont.)	20 Vrms
Total Beam Angle -6dB	50° typical
Receiver Housing Material	Aluminum
<b>Inspection Capabilities and Applications</b>	
Ultrasound; Medium/High Voltage Applications	
<b>Certifications</b>	
Certified by UL (USA) & cUL (Canada) to the following standards: 50V, 50E, 756C: Impact and Flammability, 746C & 746A-2012, 1558: Impact and Load Resistance, 508A: ANSI 508A	
CSA C22.2 No. 14-13, C22.2 No. 14-10, C22.2 No. 94-M91, C22.2 No.94.1-07, C22.2 No. 94.2-07	
IP65 / NEMA 4	
Lloyds of London Type Approval	
American Bureau of Shipping (ABS)	
DNV (Det Norske Veritas) P261.1E Maritime, Vessel and Offshore Applications	
IEEE C37 20.7 Type 2B, C37 20.2.a.3.6: Impact and Load	
IEC 62271-200, 60262271-200,60298 Appendix A, 60068-2-6:2007, 60068-2-3, 60068-2-78:2012	
<b>Other</b>	
Warranty	Unconditional Lifetime Warranty

\*Caution: These dimensions are not installation dimensions. Do NOT cut prior to receiving your IRISS IR window and installation template. Specifications are subject to change without notice. For the most up-to-date specs, go to [www.iriss.com](http://www.iriss.com)

N. America (HQ)  
+1(941)907-9128  
info@iriss.com

LATAM/APAC  
+1(941)704-4445  
info-latam@iriss.com

Europe  
+44(0)843-507-0099  
info-emea@iriss.com

Qatar  
+974-399-24-0-24  
info-mena@iriss.com

India  
+91-22-4969-0921  
info-india@iriss.com



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