

UHF Partial Discharge Monitoring System



PDX-800
UHF Monitor

OSENSA's PDX-800 monitors up to eight PDA-100 ultra-high frequency (UHF) smart sensors. It utilizes high-speed digital signal processing to detect energy bursts from partial discharge events in medium and low voltage applications such as switchgear, bus ducts, and dry-type transformers. The device phase synchronizes to 50Hz or 60Hz line frequencies and can output high resolution phase resolved cloud plots. Primary sensor data includes ambient temperature, ambient humidity, peak PD, and total PD. The synchronized AC waveform data indicates peak line-earth and line-line PD levels allowing for phase resolved troubleshooting.



PDA-100
UHF Smart Sensor

Product Specifications

| Model Name | PDX-800 | PDA-100 |
|-------------------------------------|---|-------------------------------|
| Number of Channels | 8 | 1 |
| Power | 12-24 VDC (4.5W max) | 5 VDC (supplied) |
| Operating Environment | -20 to +70°C, 0 to 95% RH, non-condensing | |
| Dimensions | 102 x 114 x 45mm | 102 x 40mm |
| Mounting | 35mm DIN Rail | Magnetic and Screw |
| Communication Protocol ¹ | Modbus RTU, Half Duplex | Proprietary |
| Update Rate | 1.25 seconds per channel | - |
| Alarms ¹ | Peak PD, Total PD, Temp, Humidity | - |
| Ambient Temperature | Reported per channel | -20°C to 70°C ± 0.5°C |
| Ambient Humidity | Reported per channel | 20% to 80% ± 2.5% |
| UHF Sensitivity ² | 50 pC to 1 µC (equivalent) | Up to -90 dBm |
| Cable Requirements | A/C Sync: 90 to 240VAC, CAT III | Shielded CAT6 <3 Ohm, 30m Max |
| Product Compliance | RoHS CE c UL [®] US | |

Notes:

1. Install with OSENSA's HMI touchscreen HMI-001 or HMI-001-RELAY to report up to 48 PDA-100 UHF smart sensors locations and capture cloud plots of PD levels, as well as PD alarms, and event log history.
2. UHF sensitivity may be field calibrated, but readings are not as precise as analytical lab instruments.

UHF Smart Sensors are installed into metal-enclosed medium voltage switchgear and related equipment to provide early detection of partial discharge and allow for planned maintenance prior to a catastrophic failure. All sensor data is available over a 3-wire RS-485 serial interface communicating industry standard Modbus RTU protocol.

TECHNICAL SUPPORT

OSENSA Innovations offers on-site support, commissioning, and training for all of its products. For immediate assistance with any technical issue, please contact support@osensa.com or call 1-888-732-0016.

WARRANTY INFORMATION

OSENSA Innovations stands behind its products and services. All products ship with a full one-year repair or replacement warranty. You may also purchase an extended five-year warranty. Some conditions apply.

CUSTOM OEM SOLUTIONS

OSENSA offers cost-effective design and consulting services at discounted rates for high-volume OEM customers. Let the engineering team at OSENSA Innovations help you rapidly develop custom sensors for your application. OSENSA's team has many years of experience designing sensors for various industrial environments.

FURTHER INFORMATION

For more information on any of our products or services please visit our website: www.osensa.com or email: info@osensa.com.



Product Dimensions

PDX-800 UHF Monitor

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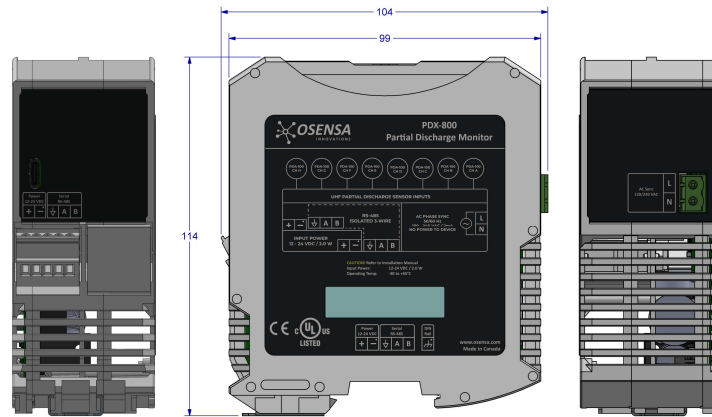
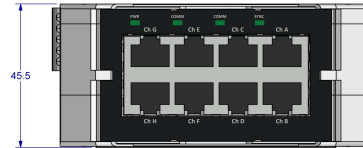
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