

PREVENT UNPLANNED DOWNTIME

The Disruptive Ultrasonic Waveguide Technology

Powered By AI & IIoT



For more information
www.xyma.in



About us

XYMA Analytics is a deep-tech company started from IIT Madras to help industries achieve new levels of efficiency and precision using patented Ultrasonic Waveguide Technology. The IoT enabled sensors can provide continuous remote multi-point and multi-parameter measurements across refineries, power plants and manufacturing units with AI-enabled predictive maintenance to enhance asset life and worker safety.

50+

Years of Industrial Experience

20+

Engineers from Premier Institutes like IITs and NITs

15+

Intellectual Properties

“Process efficiency is our priority”



Increase in efficiency, production and asset life



Reduced power consumption



Designed for hostile and hazardous environment

Improving Productivity Across 10 Industries



Defence



Refineries



Semiconductor



Metals



Lubrication



Paints



Polymers



Chemicals



Refractories



Glass

μTMapS & μSTMapS

Multi Point Temperature Mapping **Sensor** Invasive and Non-Invasive



μTMapS and μSTMapS are robust high-temperature monitoring sensors that are capable of multi-point measurements in a single waveguide sensor. Combined with our AI - powered soft sensors, they provide 3D temperature profiles of any assets.

Specifications



Functions : Measures Unit Temperature (μTMapS), Skin Temperature (μSTMapS)



Measuring range : Temperature: 25 °C to 1450 °C



Resolution : Temperature: 0.01 °C



Accuracy : Temperature: ±1 °C



Power Supply : Compatible with Industrial Standards

μTMapS & μSTMapS : Application



Pot health monitoring



Furnace tube skin temperature monitoring



Continuous temperature monitoring of Pedestal



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PoRTS Portable Rheology and Temperature Sensor

Invasive and Non-Invasive



PoRTS is a multi-parameter measurement sensor to continuously monitor viscosity, density and temperature of a fluid with high reliability and precision using a single ultrasonic waveguide. This unique feature leaves a small footprint in any process unit.

Specifications



Functions : Measures Viscosity, Density and Temperature



Measuring range : **Viscosity:** 50 cP - 15000 cP,
Density: 700 kg/m³ to 1200 kg/m³,
Temperature: 20 °C to 400 °C



Resolution : **Viscosity :** 10 cP,
Density : 1 kg/m³,
Temperature : 0.1 °C



Accuracy : **Viscosity :** ±1%,
Density : ±1%,
Temperature : ± 1 °C



Power Supply : Compatible with Industrial Standards

PoRTS : Application



Lubrication oil condition monitoring



Paint mixture homogeneity monitoring



Continuous viscosity and density measurement



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Ztar Ultrasonic Level Measurement Sensor

Contact and non-contact based



Ztar is our waveguide based ultrasonic level sensor that provides accurate measurements even at higher temperatures. It is compatible with corrosive and hazardous fluids due to wide range of waveguide materials.

Specifications



Functions : Measures Fluid Level



Measuring level : Level : 0.03 m to 10 m



Resolution : Level : 1 mm



Accuracy : Level : $\pm 1\%$



Power Supply : Compatible with Industrial Standards

Ztar : Application



Continuous level measurement in reactor bath and canister



Continuous refrigerant cylinder location and level monitoring



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I-PAMS

IoT for Plant Asset Monitoring System



I-PAMS is our Industrial-IoT based asset monitoring system for industries. It provides real-time data visualization and detailed analysis delivering complete process control to the operator.

Specifications



Functions : Real Time Monitoring Assets



Security Protocol : HTTPS(TCL/SSL), IPsec, SSH, WPA/WPA2/WPA3, Bcrypt, Keberos



Data Connectivity Protocol: Zigbee, WiFi(2.49Hz, 5.49Hz), Bluetooth-LE, LORA, RS-232, Tcp/Ip, Modbus, RS-485, Cellular

I-PAMS : Application



Real-time
Thermal Mapping



Predictive
Maintenance



Data
Visualisation



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Awards & Achievements



Testimonials

SKF

"XYMA's groundbreaking technology promises to revolutionize multipoint and multi-parameter measurements, offering precision, versatility, and sustainability in one remarkable package. Excited for a long-term partnership with this innovative team!"

-CEO at Vesta Si Sweden AB, an SKF Group Company

Schneider
Electric

"The sensor has truly transformed our paint manufacturing process, ensuring real-time monitoring, improved accuracy, enhanced output quality, and helped us derive data-driven decisions. We are positive about the prospect of continuing further integration of the sensors into more OEM units"

-Senior Principal Technical Expert, Schneider Electric

Technology / Accelerator Support

FORGE
Innovation & Ventures

Shell E4
Energizing and Enabling Energy Entrepreneurs

IITM
INCUBATION
CELL

IIM KOZHIKODE
LIVE
LABORATORY FOR
INNOVATION
VENTURING AND
ENTREPRENEURSHIP

NASSCOM
Center of Excellence-IoT & AI
A MoU Initiative with Govt. of Karnataka, Haryana, Gujarat & AP

Qualcomm



Our Clients



Contact Us

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