# TRANSMITTER



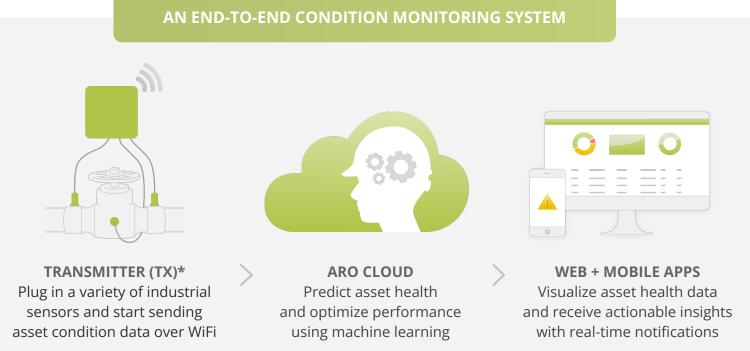
# **PETA-TX** Wireless Multi-Sensor Input Module for Condition Monitoring



**The Transmitter (TX)** is a wireless, multi-sensor input module for condition monitoring of any industrial asset, including rotating machinery such as motors, pumps, fans and compressors; valves; steam traps; piping; electrical panels and more.

Whether installing new sensors or leveraging existing sensors, the Transmitter can capture parameters such as ultrasound, current, pressure, vibration, temperature and more. Each Transmitter can support up to 9 input channels and is compatible with most 3rd-party industrial sensors (4-20 mA or 0-30 V).

The TX is WiFi-enabled and can connect to any standard 802.11 WiFi network. The data can be accessed via the Petasense ARO Cloud, to continuously monitor the health of your critical assets from anywhere at any time.



\*Use of Transmitters requires an active subscription to the Petasense ARO Cloud

Motor Current

Leak Detection

& Amperage

Humidity

And more

## ONE DEVICE TO MONITOR ALL

From rotating machines like motors, pumps and fans to non-rotating assets like steam traps, valves, piping and electrical panels, the Transmitter is optimized for any industrial monitoring application.

- Rotating Machinery: Motors, Pumps, Fans, Compressors, Gearboxes, Mixers, Conveyors, Cranes and more
- HVAC Machinery
- Electrical Panels
- Steam Traps & Valves
- Piping
- And More

#### **IDEAL FOR IN-ACCESSIBLE ASSETS**

Assets that are physically difficult to access due to enclosures or confined spaces make it challenging to deploy wireless technology.

As a solution, the Transmitter can be installed outside of machine enclosures or confined areas, where WiFi is available, while the sensors can be mounted closely to the machinery, enabling wireless condition monitoring of in-accessible equipment like air handling units, cooling towers and more.

#### **STOP CHANGING BATTERIES**

The Transmitter can be powered with standard AC or DC power enabling you to capture endless amounts of data without ever changing a battery again.

#### WIFI + BLUETOOTH ENABLED

Simply connect the Transmitter to your existing WiFi network (2.4 GHz, 802.11) for continuous data collection or take readings on-demand from nearby machines using bluetooth on your mobile device.

## SUPPORTS HUNDREDS OF SENSORS

Whether deploying new sensors or leveraging existing sensors installed on your machinery, the Transmitter is compatible with most 3rd-party industrial sensors (4-20 mA or 0-30 V). Connect up to 9 input channels from a variety of sensor types to fit your condition monitoring needs.

- Vibration
- Ultrasound
- Temperature
- Pressure
- Oil Condition

### **EVENT-BASED DATA COLLECTION**

Setup custom event-based triggers to capture sensor measurements at the perfect time. The TX can trigger sensor measurements based on hardwired inputs from PLCs and switches or wirelessly based on inputs from other nearby TXs.

#### INDUSTRIAL CERTIFICATIONS

The Transmitter is rated IP67 waterproof for wet or humid environments and incorporates a food-safe, pharma-safe polycarbonate housing.

#### INDOOR OR OUTDOOR INSTALLATION

Transmitters come pre-installed inside weatherproof enclosures complete with a power set and breaker switch, facilitating safe and easy implementation in any environment. Up to four Transmitters can be mounted inside each enclosure. Simply route power and sensor inputs into the enclosure to initiate monitoring.

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## Petasense ARO: Asset Reliability & Optimization

brings together sensor data, asset knowledge, physics based modeling and machine learning analytics to get the most out of any industrial asset. Implement a wireless IoT based predictive maintenance program (PdM) for all critical equipment.

### ACTIONABLE INSIGHTS POWERED BY MACHINE LEARNING

Petasense's advanced algorithms generate easy-to-understand *Asset Health Scores* for each asset in real-time. *Diagnostic Rules* alert your team about specific machine faults and suggest recommended actions. Uncover valuable patterns and trends in your data, empowering informed decision-making and predictive maintenance strategies.

# MONITOR YOUR CRITICAL ASSETS FROM ANYWHERE, ANYTIME

Bring crucial data directly to your experts, allowing for remote monitoring and analysis to ensure prompt responses to potential issues. Petasense also offers expert analysis services, acting as an extension of your asset reliability team for comprehensive monitoring support.

## CUSTOMIZABLE DASHBOARD

Tailor your monitoring experience with a dashboard that adapts to your specific needs, displaying critical information at a glance. A library of dashboard widgets can be cater to a variety of user types.

## ADVANCED ANALYST TOOLS

ARO Cloud has an intuitive-user interface with all the technical features that an analyst will need to diagnose developing problems, including a range of customizable alarms, charts and automated insights.

#### **INTEGRATE 3RD PARTY SYSTEMS**

Bring in data from or send data to a variety of sources to create a complete model of real-time asset conditions. Petasense APIs enable bi-directional integration with historians, analytics, CMMS, SCADA systems and other 3rd party software.

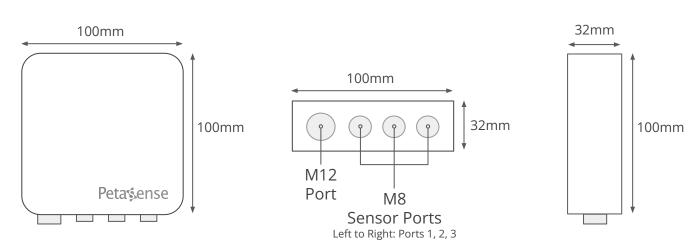
# **Technical Specifications**

# Petasense

FRONT



SIDE



#### PHYSICAL

Dimensions	<i>Device:</i> 100mm x 100mm x 32mm (3.9" x 3.9" x 1.2")
Weight	170 g
Mounting	DIN rail, pre-installed in various enclosure types, other mounting methods available upon request

#### PORTS

Sensor Ports	3 x 6-pin M8 ports (3 channels/port)
Other Ports	1 x 8-pin M12 port
Sensor Types Supported	4-20 mA, 0-30 V, 0-5 V, and passive resistance (e.g. RTD)
Anti-aliasing Filter Range	Configurable from 4 to 55kHz
Adjustable Gain	1X, 2X, 4X, 8X
DC Bias Subtraction	0 to 100% (in 10% increments)

### COMPUTING

Processor	ARM Microcontroller
Flash Memory	16 MB
AD Conversion	16 Bit

#### POWER

Source	AC or DC power (requires Transmitter enclosure with AC or DC power set)
Support for Powering Sensors	0-27 V

#### CONNECTIVITY

Wireless	802.11 b/g/n WiFi 2.4 GHz,
Protocol	Dual-Mode Bluetooth 2.4 GHz
Integrated Antenna	2.5 dBi max gain

#### **ENVIRONMENT**

Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	< 85°C (185°F)
Certifications	IP67, F1-rated UV resistance

Contact us for inquiries and pricing details Phone: +1 (800) 215-1485 Email: sales@petasense.com