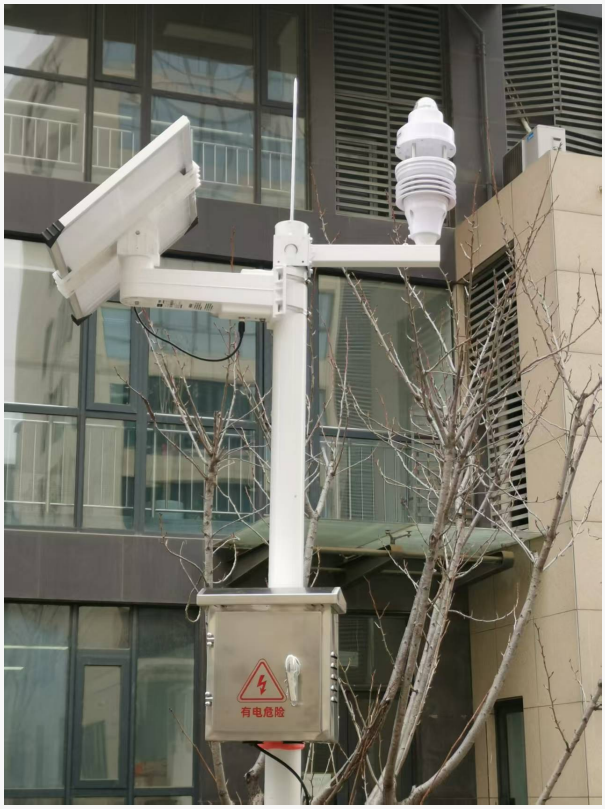
Polysense Expand its SW-defined Environmental Monitoring Sensors Portfolio for Government and Enterprise Sectors

Polysense expand its SW-defined sensors portfolio with atmospheric AQI and meteorological integrated weather station monitoring sensors



SANTA CLARA, CA, UNITED STATES, March 17, 2025 /EINPresswire.com/ -- In an era defined by escalating environmental challenges and the urgent need for data-driven ecological stewardship, Polysense Technologies, a global leader in Low-Power Wide-Area (LPWA) IoT sensing solutions, today unveiled a transformative suite of air and weather monitoring systems, expand its existing atmospheric environmental and weather station sensors. Designed to empower governments, enterprises, and communities with unparalleled environmental intelligence, these innovations mark a pivotal leap forward in the fight against air pollution, climate change, and meteorological uncertainties.

As urbanization accelerates and industrial activities expand, the imperative to safeguard air quality and predict weather patterns with precision has never been greater. Traditional monitoring frameworks—often plagued by limited coverage, delayed data insights, and rigid infrastructure—struggle to meet modern demands. Polysense's latest advancements disrupt this

paradigm, delivering solutions that fuse cutting-edge sensor technology, IoT connectivity, and modular design to create a resilient ecosystem for environmental management.

“The stakes could not be higher,” said Alex Wu, President and CEO of Polysense Technologies. “Air pollution claims millions of lives annually, while extreme weather events wreak havoc on economies and ecosystems. Our mission is to equip decision-makers with the tools to act decisively—tools that transcend geographic, technical, and operational barriers.”

http://www.einpresswire.com/newsroom/polysense/

Core Innovations: Redefining Flexibility and Adaptability
Polysense’s expanded portfolio introduces new sensor’s modulation and configuration features with its iEdge4.0 SW-defined sensors technology, bringing the users endless capability to include the gas types and the meteorological sensors in the unified systems. Compliance to Polysense open architecture, the system includes four components: WxS smart terminal providing various data transmission technologies, the PSS-42301x(x:1-7) the atmospheric AQI sensors, PSS-4030Jx(x:0-B) the meteorological integrated weather station, and PSP-SCSC15/25/30/45/60 the optional solar power system.

Modular Sensors for Customizable for Air Quality Index Monitoring
PSS-42301x(x:1-7) AQI sensors redefine flexibility through its plug-and-play modular architecture, the sensors will be provided based on the user’s definition on the parameters:

PSS-423011 6-in-1 Outdoor AQI (PM2.5/10, SO2, NO2, O3, CO) standard AQI version
PSS-423012 10-in-1 Outdoor AQI (PM1/2.5/10, SO2, NO2, O3, CO, Temp, Humidity, Barometric Pressure)
PSS-423013 11-in-1 Outdoor AQI (PM1/2.5/10/TSP, SO2, NO2, O3, CO, Temp, Humidity, Barometric Pressure)
PSS-423014 12-in-1 Outdoor AQI (PM1/2.5/10/TSP, SO2, NO2, O3, CO, TVoC, Temp, Humidity, Barometric Pressure)
PSS-423015 13-in-1 Outdoor AQI (PM1/2.5/10/TSP, SO2, NO2, O3, CO, TVoC, NO, Temp, Humidity, Barometric Pressure)
PSS-423016 14-in-1 Outdoor AQI (PM1/2.5/10/TSP, SO2, NO2, O3, CO, TVoC, NO, NH3, Temp, Humidity, Barometric Pressure)
PSS-423017 15-in-1 Outdoor AQI (PM1/2.5/10/TSP, SO2, NO2, O3, CO, TVoC, NO,NH3, H2S, Temp,

Humidity, Barometric Pressure)

These PSS-42301x sensor provides advantage of the diverse parameter measurement, scalable deployment, and future-proof upgrade, which are expandable from single-site monitoring to city-wide networks without infrastructure overhauls, and investment protection by sensors swapping or upgrading independently.

The atmosphere AQI sensors are electrochemical sensors with high accuracy and sensitivity at ppb level, providing low power and longtime reliability operation for critical users such as government.

https://www.linkedin.com/company/polysense

Comprehensive Meteorological Weather Monitoring Sensor
PSS-4030Jx(x:0-B) meteorological sensor introduce the modular and configurable capability with up to 12 parameters in one system: ultrasonic wind speed, wind direction, eCompass, temperature and humidity, air barometric pressure, noise, PM2.5/10, CO2, illumination, solar total rediation, optical rain gauge(Optical Tipping Bucket Rain Gauge), UV sensor. Besides the pre-built version in the PSS-4030Jx, any of the parameters can be mixed in the integrated station.

PSS-4030J0 Ultrasonic Wind Speed & Direction Sensor
PSS-4030J1 Ultrasonic Wind Direction+Speed+eCompass Sensors
PSS-4030J2 Ultrasonic Wind Direction+Speed+eCompass+Temperature+Humidity
PSS-4030J3 Ultrasonic Wind Direction+Speed+eCompass+Temperature+Humidity+AirPressure Sensors
PSS-4030J4 Ultrasonic Wind Direction+Speed+eCompass+Temperature+Humidity+AirPressure+PM2.5/10 Sensors
PSS-4030J5 Ultrasonic Wind Direction+Speed+eCompass+Temperature+Humidity+AirPressure+CO2 Sensors
PSS-4030J6 Ultrasonic Wind Direction+Speed+eCompass+Temperature+Humidity+AirPressure+PM2.5/10+illumination Sensors
PSS-4030J7 Ultrasonic Wind Direction+Speed+eCompass+Temperature+Humidity+AirPressure+PM2.5/10+illumination+Solar total radiation Sensors
PSS-4030J8 Ultrasonic Wind Direction+Speed+eCompass+Temperature+Humidity+AirPressure+PM2.5/10+Solar total radiation+Optical Tipping Bucket Rain Gauge+illumination Sensors
PSS-4030J9 Ultrasonic Wind Direction+Speed+eCompass+Temperature+Humidity+AirPressure+PM2.5/10+Solar total radiation+Optical Tipping Bucket Rain Gauge+illumination+Noise Sensors
PSS-4030JA Ultrasonic Wind

Direction+Speed+eCompass+Temperature+Humidity+AirPressure+PM2.5/10+Solar total radiation+Optical Tipping Bucket Rain Gauge+illumination+UV Index

Efficient Solar Power systems for the integrated sensors:
PSP-SCS5xx(xx15/25/30/45/60) The Monocrystalline Silicon Solar Charging System is based on 12V power supply, with multiple power options and battery capacity to choose from.

Technical Excellence: Building the Future of Environmental IoT
Three foundational pillars of innovation in the expansion product portfolio:
- High-Precision Sensing: enhancing sensitivity to trace pollutants and ensuring accuracy across temperature and humidity extremes via multi-point calibration
- IoT and Edge Computing Synergy: Low-power LPWA connectivity with years life sensors, and edge computing to reduce latency.
- Ecosystem Compatibility: open architecture ensuring seamless integration with third-party platforms.

About Polysense:
Established in Santa Clara, California, Polysense is dedicated to providing comprehensive, end-to-end solutions for the IoT market. Powered with its iEdge 4.0 OS and advanced configurable, modular open architecture, Polysense SW-defined sensors technology simplifies sensing complexity and reduces costs in real-world applications.

Press Contact:
Alina Wu at PR@polysense.net.
Product inquiry:
- https://www.polysense.net
- Email: sales@polysense.net

Polysense Sales
Polysense Technologies Inc
Sales@Polysense.net
Visit us on social media:
Facebook
X
LinkedIn