Polysense launches iEdge 4.0 OS powered Predictive Maintenance (PdM) Vibration sensors cluster for IIoT applications

Polysense vibration sensors cluster provides an efficient and effective solution for various machine operational health monitoring in the IIoT industry

SANTA CLARA, CALIFORNIA, USA, March 21, 2024 /EINPresswire.com/ -- [Polysense](#) Technologies Inc., (Polysense) an innovation leader in LPWA IoT solutions for wireless sensing, today launches the uni-axial and tri-axial vibration sensors, a powerful tool for the machine operational health monitoring Predictive Maintenance (PdM) IIoT applications in the factory, clean water and sewage-treatment plant, HVAC systems, water pumps, which works with WxS edge computing platform to provide flexible wireless uplink for cloud connectivity such as NB-IoT, Wi-Fi, LoRaWAN, and LTE Cat1, Cat M and Cat4.

Modern society's smooth operation depends on various machine's continuous operation, so that to ensure people's daily security and health in work, education and life. Critical machine's operation is the key factor in cities, factories, schools,

Measuring Parameters:
Uni-axial and tri-axial vibration velocity
vibration displacement, surface temperature

Optional Frequency Range(HZ)
10-1600 | 10-5000

Equipment bottom identification   x: Horizontal/y: axial/z: vertical

Flexible Installation Options

Thread/magnetic suction installation

Thread M5/M8/M12   Magnetic suction

hospitals, and those utility infrastructures. We make huge investment in those key infrastructure to maintain those machines in good conditions, to keep the business continuious and to prevent

disasters caused by the machine's failure. Machine Health Monitoring (MHM) is the emerging requirements in the smart and intelligent cities, of maintaining the good operational condition status, of preventive and predictive maintenances, of reducing the energy cost in the green economy and of the potential business discontinuity loss.

Device Example

Polysense now launched the new designed vibration sensors cluster to meet the market requirements, which include uni-axial, tri-axial with 10-1,600Hz, 10-5,000Hz, 10-10,000Hz and Screw M5, M8, M12 or Magnetic head type for various machines Predictive Maintenance (PdM). The vibration sensors include different versions for the end use usage, provides vibration displacement, vibration speed, acceleration and spectrum analysis. The sensors are widely used to monitor the operations of electrical machine, reducer, alternator, compressor, centrifuge, water pump in mine industry, chemical industry, metallurgy industry, electric power industry etc.

"With the deployment of Polysense vibration sensors at our 65 sewages plant, we monitor 189 water pumps operation already. Each machine now has their own operation model based on the big data captured from last several months", said an anonymous CEO from Brunei, "Polysense IoT products can be equipped with different sensors into one terminal, in our application, we combine vibration sensor and current transformer together in one system, it exports the data of the machine conditions and the electricity consumption of the pump so that we can monitoring the machine completely at the same time. It does help us a lot in the daily maintenance to prevent the critical machines failure, and reduce the maintenance cost to about 35%, comparing to last year."

Polysense vibration sensors product clusters:

PSS-4030B1 Temp+uni-axial Vibration PdM Sensor (10-1,600Hz, Screw type)
PSS-4030B4 Temp+uni-axial Vibration PdM Sensor (10-1,600Hz, Magnetic head type)
PSS-4030C1 Temp+uni-axial Vibration PdM Sensor (10-5,000Hz, Screw type)
PSS-4030C4 Temp+uni-axial Vibration PdM Sensor (10-5,000Hz, Magnetic head type)
PSS-4030D1 Temp+tri-axial Vibration PdM Sensor (10-1,600Hz, Screw type)
PSS-4030D4 Temp+tri-axial Vibration PdM Sensor (10-1,600Hz, Magnetic head type)
PSS-4030E1 Temp+tri-axial Vibration PdM Sensor (10-5,000Hz, Screw type)
PSS-4030E4 Temp+tri-axial Vibration PdM Sensor (10-5,000Hz, Magnetic head type)
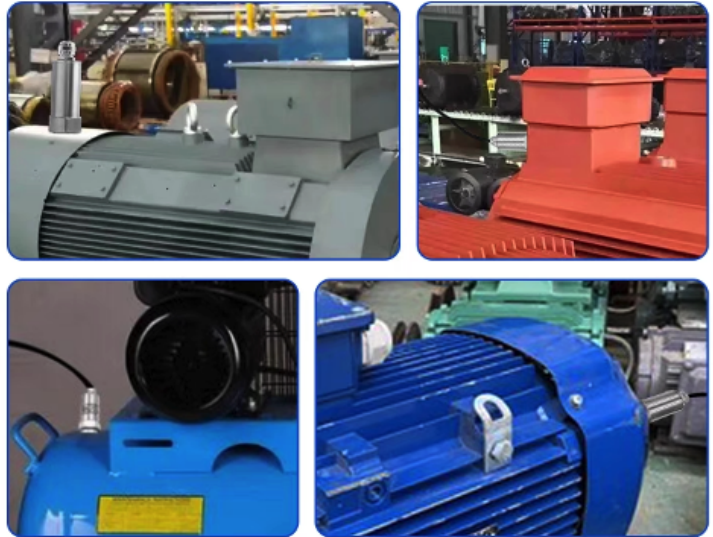
PSS-4030F1 Temp+uni-axial Vibration PdM Spectrum Analysis Sensor (10-10,000Hz, Screw type)

PSS-4030F4 Temp+uni-axial Vibration PdM Spectrum Analysis Sensor (10-10,000Hz, Magnetic head type)

PSS-4030G1 Temp+tri-axial Vibration PdM Spectrum Analysis Sensor (10-1,600Hz, Screw type)

PSS-4030G4 Temp+tri-axial Vibration PdM Spectrum Analysis Sensor (10-1,600Hz, Magnetic head type)

PSS-4030H1 Temp+tri-axial Vibration PdM Spectrum Analysis Sensor (10-5,000Hz, Screw type)

PSS-4030H4 Temp+tri-axial Vibration PdM Spectrum Analysis Sensor (10-5,000Hz, Magnetic head type)

Vibration PSS sensors need to be BYODed with WxS smart terminals, examples are:

WxS8800-4030B1 LoRaWAN Temperature+uni-axial Vibration PdM Sensor

WxS8800-4030D3 LoRaWAN Temperature+tri-axial Vibration PdM Sensor

Vibration sensors can work seamlessly with different WxS product series with different uplink technologies: WxS7800 WiFi series, WxS8800 LoRaWAN series, WxS9900 NB-IoT Series, WxSC800 LTE Cat1 Series and WxSD800 LTE Cat4 series. With the different PSS sensors combined with the vibration sensor, the customer also can BYOD (Build-Your-Own-Devices) with Polysense Technologies so that to monitor any related and wanted sensor data with Polysense PSS sensors.

"Our business vision is to develop solutions with sensors covering the whole physical world with chemical sensors and physical sensors, and in the future, with biological sensors. When the sensors launched one by one, batch by batch, we will be equipped with the abilities of Sensing and Connecting the World. Any Polysense PSS sensors can be combined into one WxS terminal with the BYOD function empowered by the iEdge 4.0 OS." Said Alex Wu, the President and CEO, "Our partners and customers will greatly improve the capacity to meet the IoT requirements in their area with the WxS products.

Availability

Orders can be placed immediately. For pricing or further information,Please contact : info@polysense.net; info@polysense.tech

About Polysense

Founded in 2013 and Located in Santa Clara, California, Polysense starts the business from EPON/GPON focused edge products in data telecommunications industry, and expands the value proposition to data sensing focused IoT industry after we realized the next stop of Information Technologies development will be ubiquitous sensing for the upcoming smart digital thingsworld. With the business philosophy of "sensing and connecting the world" in mind, the company is committed to providing the end-to-end integrated solutions of "universal sensing and communication" for the Internet of Things market. Empowered by iEdge 4.0 virtual micro kernel IoT Things OS and the cutting-edge configurable and modular open architecture, Polysense provides BYOD (Build-Your-Own-Devices) capabilities andservices of white label,

rebrand, OEM and ODM to simplify the sensing complexity and reduce the sensing cost in the real things world.

Polysense IoT products include decoupled various chemical and physical sensors and communications of LoRaWan, WiFi, NB-IoT, Cellular LTE Cat1 and Cat4, which will be expanded to next planned area of Sigfox, BT/BLE, Zigbee, Z-Wave, Mesh and 5G mmTC. Private communication and protocol technologies are easier to be expanded and grafted so that various IoT terminal products are available for those such as satellite communications.

With the global customers and partners over 150 countries, we will continuously contribute to the digital transformation of business, work, life and study of human beings. let's sensing and connecting the digital world together with the BYOD services of Polysense Technologies!

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