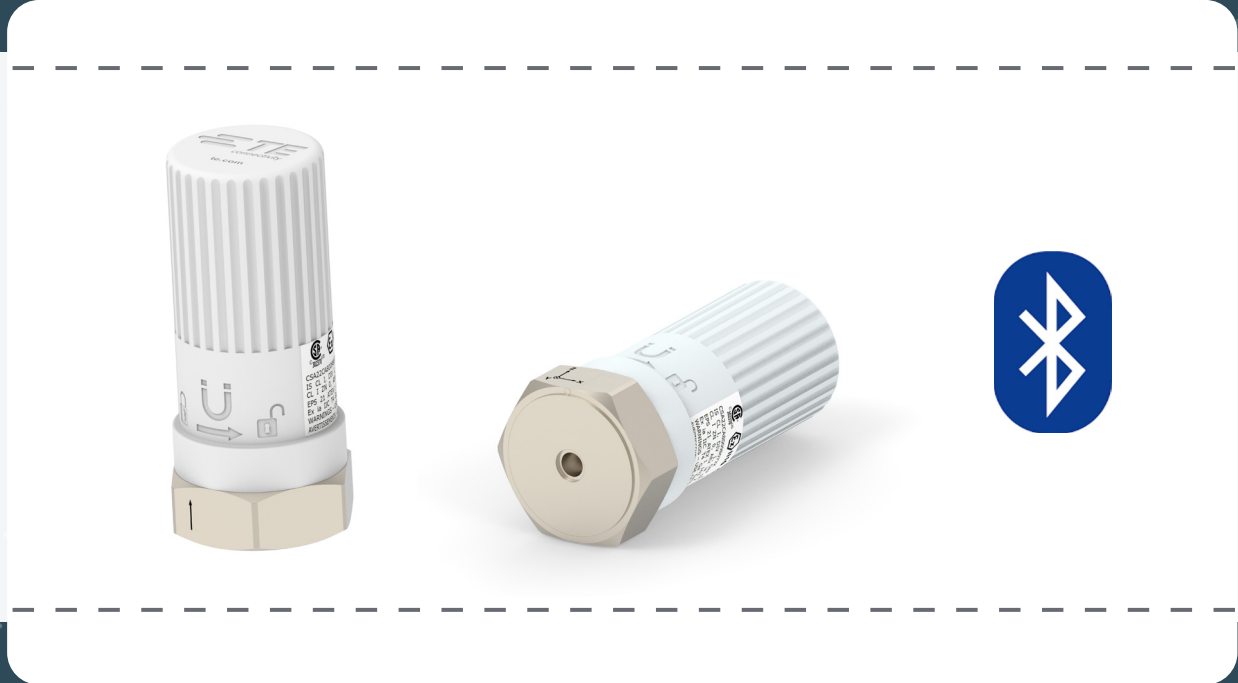


WIRELESS VIBRATION SENSOR, UTILIZING
BLUETOOTH® LOW ENERGY TECHNOLOGY



85X1N WIRELESS BLUETOOTH® VIBRATION SENSOR

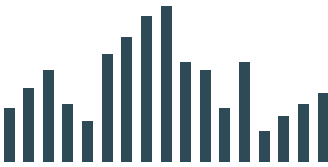






MINIMIZE UNSCHEDULED DOWNTIME WITH TE’S WIRELESS VIBRATION SENSOR FOR LOCALIZED CONDITION MONITORING

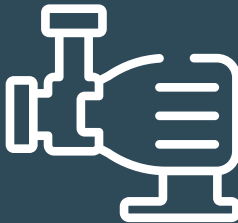
The **85x1N** is a wide-bandwidth accelerometer offering an excellent resolution of up to 10kHz. The design features universal capability via Bluetooth® and edge-computing for user-configurable settings and features. Designed with harsh environments in mind, the 85x1N offers IP66/67 protection and is ATEX, NEC & CSA, CE & FCC certified. The long battery life coupled with the high-stability piezoelectric core design requires minimal maintenance and provides great stability over the long term. Compatible with industrial standard mounting techniques the 85x1N is easily installed and set up in existing locations and new machinery.

For long range LoRaWAN® capability please refer to our 89X1N vibration sensing product line.


TOP 5 BENEFITS

High resolution FFT (Fast Fourier Transform)	Wide bandwidth for early fault detection	Effortless installation in constrained spaces	Battery life of up to ten years	Safe operations in high-risk zones with top-tier certifications
				
The sensor has embedded edge-computing with an FFT (Fast Fourier Transform) ‘Toolbox’ that is configurable remotely locally using Bluetooth® with the TE SensorConnect App (available in App Store or Google Play). The 85x1N measures acceleration (RMS, Peak to Peak) and velocity and provides the ability to set threshold limits, allowing the sensor to send critical measurements only when needed, maximizing battery life and network efficiency.	TE’s piezoelectric core design of the 85x1N enables excellent resolution over a wide bandwidth of up to 10kHz, compared to 4kHz in common MEMs-based models. Higher frequencies provide an earlier indication of wear, for scheduling preventative maintenance before damage or failure occurs. The 8511N measures along a single axis perpendicular to the mounting surface, and the 8531N provides 3 axis capability.	The sensor is ultra-compact, weighing only 200 grams (7.1 Oz) with a volume of 5 cubic inches. Fitting in the palm of your hand its small form factor is a game-changer, especially when installation spaces are limited or intricate.	This sensor is designed for condition monitoring with a battery life tailored to periodic readings, reducing the need for frequent maintenance. An impressive battery capacity of 2100 mAh means that the sensor remains functional for extended periods.	Safety is paramount, especially when operating in hazardous or high-risk environments where explosive gases, vapors or liquids may be present. The 85x1N wireless Bluetooth sensor stands out by adhering to some of the most stringent safety certifications in the industry, including ATEX CID1, NEC Class I, Division 1, and ATEX Ex ia IIC.


85X1N SENSOR APPLICATIONS: LOCAL MONITORING




Pumps and
pumping systems



Oil and Gas
equipment
monitoring



Conveyor systems



Paper and
pulp mill

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89X1N WIRELESS
LORAWAN®
VIBRATION SENSOR

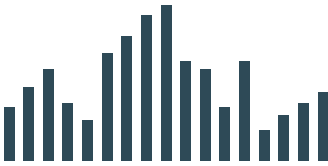

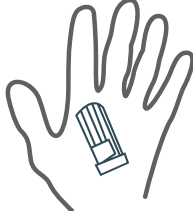




MINIMIZE UNSCHEDULED DOWNTIME
WITH TE’S WIRELESS VIBRATION SENSOR
FOR REMOTE CONDITION MONITORING

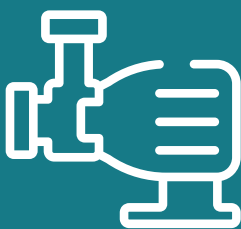
The **89x1N** is a wireless vibration sensor with a wide-bandwidth, offering an excellent resolution of up to 10kHz. The design features long-range reach of the LoRaWAN® Class A protocol and edge-computing for user-configurable settings and features. Designed with harsh environments in mind, the 89x1N offers IP66/67 protection and is ATEX, NEC & CSA, CE & FCC certified. The long battery life coupled with the high-stability piezoelectric core design requires minimal maintenance and provides great stability over the long term. Compatible with industrial standard mounting techniques the 89x1N is easily installed to set up in existing locations and new machinery.

[For Bluetooth® communications capability please refer to our 85X1N vibration sensing product line.](#)

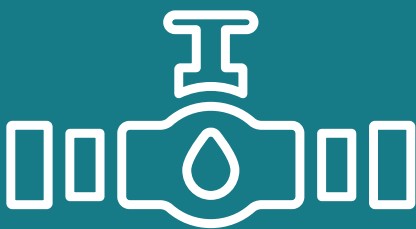
TOP 5 BENEFITS

High resolution FFT (Fast Fourier Transform)	Wide bandwidth for early fault detection	Effortless installation in constrained spaces	Battery life of up to ten years	Safe operations in high-risk zones with top-tier certifications
				
The sensor has embedded edge-computing with an FFT (Fast Fourier Transform) ‘Toolbox’ that is configurable remotely via LoRaWAN® downlink messages or locally using Bluetooth® with the TE SensorConnect App (available in App Store or Google Play). The 89x1N measures acceleration (RMS, Peak to Peak) and velocity and provides the ability to set threshold limits, allowing the sensor to send critical measurements only when needed, maximizing battery life and network efficiency.	TE’s piezoelectric core design of the 85x1N enables excellent resolution over a wide bandwidth of up to 10kHz, compared to 4kHz in common MEMs-based models. Higher frequencies provide an earlier indication of wear, for scheduling preventative maintenance before damage or failure occurs. The 8511N measures along a single axis perpendicular to the mounting surface, and the 8531N provides 3 axis capability.	The sensor is ultra-compact, weighing only 200 grams (7.1 Oz) with a volume of 5 cubic inches. Fitting in the palm of your hand its small form factor is a game-changer, especially when installation spaces are limited or intricate.	This sensor is designed for condition monitoring with a battery life tailored to periodic readings, reducing the need for frequent maintenance. An impressive battery capacity of 2100 mAh means that the sensor remains functional for extended periods.	Safety is paramount, especially when operating in hazardous or high-risk environments where explosive gases, vapors or liquids may be present. The 85x1N wireless Bluetooth® sensor stands out by adhering to some of the most stringent safety certifications in the industry, including ATEX CID1, NEC Class I, Division 1, and ATEX Ex ia IIC.

89X1N SENSOR APPLICATIONS:
REMOTE MONITORING



Pumps and
pumping systems



Oil and Gas
equipment
monitoring



Gearboxes
& turbines



Steel Mill

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