

EVERY CONNECTION COUNTS



SOLUTION GUIDE

# ***SENSORS FOR WIRELESS INDUSTRIAL IOT***



# SENSORS FOR WIRELESS INDUSTRIAL IOT

Wireless IoT sensors are changing the way industrial and remote environments are monitored and managed. By eliminating complex wiring and difficult installation, wireless sensor systems make it faster and easier for organizations to deploy data-driven insight where it's needed most. These solutions are suitable for operations spread across remote locations- pipelines, pumps, utility infrastructure, storage tanks, HVAC systems, and more- where sending technicians on-site is costly, slow and inefficient. With quick setup, flexible configuration, and dependable long-range connectivity, wireless IoT sensors enable rapid set-up, improved visibility and smarter operations with minimal disruptions.

## Why Choose TE Connectivity's Wireless Sensors (N-Series)

TE Connectivity's N-Series wireless sensors- including the [5xxxN](#), [6xxxN](#) and [8xxxN](#) product families, are engineered to deliver reliable monitoring with minimal set-up effort. Built for tough, real-world environments, they combine **robust wireless communication**, **fast configuration**, and **industrial-grade durability** to keep your operations running with less complexity.

## Key Advantages at a Glance

- Easy, Fast Installation- No Wiring Required
- Long Battery Life for Remote or Hard-To-Reach Locations
- Lower Installation & Maintenance Costs
- Flexible Wireless Architectures
- Rugged, Industrial-Grade Construction

| Sensor                                                                                                                                               | Application                                                                                                                                                                                                                            | Key Product Features                                                                                                                                                                                                                                                                                                                                                   | Why Choose This Sensor?                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><a href="#">55xxN Wireless Bluetooth® Humidity Sensor</a>       | <ul style="list-style-type: none"> <li>Data centers</li> <li>HVAC Systems in smart buildings</li> <li>Warehousing and Storage</li> <li>Agriculture and smart farming</li> <li>Energy storage systems</li> <li>Environmental</li> </ul> | <ul style="list-style-type: none"> <li>Reliable Wireless Connectivity: Bluetooth® low energy, stable remote monitoring</li> <li>Configurable Transmission Thresholds</li> <li>Compact and lightweight</li> <li>Long battery life</li> <li>Rugged design</li> <li>Hazardous location certified</li> </ul>                                                               | <ul style="list-style-type: none"> <li>Wireless setup reduces installation time and cost</li> <li>Threshold-based reporting cuts data traffic and saves power</li> <li>Fits easily into space-limited industrial systems</li> <li>Long service life lowers maintenance needs</li> <li>Built to withstand harsh and hazardous environment</li> </ul>                                                             |
| <br><a href="#">59xxN Wireless LoRaWAN® Humidity Sensor</a>         | <ul style="list-style-type: none"> <li>Data centers</li> <li>HVAC Systems in smart buildings</li> <li>Warehousing and Storage</li> <li>Agriculture and smart farming</li> <li>Energy storage systems</li> <li>Environmental</li> </ul> | <ul style="list-style-type: none"> <li>Reliable Wireless Connectivity: LoRaWAN® long-range remote monitoring</li> <li>Configurable Transmission Thresholds</li> <li>Compact and lightweight</li> <li>Long battery life</li> <li>Rugged design</li> <li>Hazardous location certified</li> </ul>                                                                         | <ul style="list-style-type: none"> <li>Eliminates wiring for fast and low-cost deployment</li> <li>Threshold-based alerts minimize transmissions and extend battery life</li> <li>Fits easily into space-constrained equipment and installations</li> <li>Long service life reduces maintenance needs</li> <li>Built to withstand harsh and hazardous industrial environments</li> </ul>                        |
| <br><a href="#">65xxN Wireless Bluetooth® Pressure Transducer</a> | <ul style="list-style-type: none"> <li>Smart assembly lines</li> <li>Pump monitoring</li> <li>Gas cylinders</li> <li>Oil well monitoring</li> </ul>                                                                                    | <ul style="list-style-type: none"> <li>Reliable Wireless Connectivity: Bluetooth® low energy, stable remote monitoring</li> <li>Accurately measures 30-5000 psi</li> <li>Compact and weighs only 170g</li> <li>2100 mAh battery supports extended operation</li> <li>ATEX C1D1, NEC Class I, Division I, ATEX Ex ia IIC certified</li> </ul>                           | <ul style="list-style-type: none"> <li>Covers a wide range of pressure needs with fewer components, reducing systems complexity and cost</li> <li>Small footprints support fast installation even where space is limited</li> <li>Long operational life decreases service intervals and ongoing maintenance costs</li> <li>Meets top industry safety standards for high-risk industrial environments</li> </ul> |
| <br><a href="#">69xxN Wireless LoRaWAN® Pressure Transducer</a>   | Remote monitoring in: <ul style="list-style-type: none"> <li>Pipeline Network</li> <li>Oil well</li> <li>Tank level</li> <li>Cylinder Pressure</li> </ul>                                                                              | <ul style="list-style-type: none"> <li>LoRaWAN® technology: reliable long-distance connectivity, data security with encryption and authentication</li> <li>Ultra-compact weighs only 170 grams</li> <li>Small form-factor</li> <li>2100 mAh battery has extended operational lifespan</li> <li>ATEX C1D1, NEC Class I, Division I, ATEX Ex ia IIC certified</li> </ul> | <ul style="list-style-type: none"> <li>Secure extended-range monitoring</li> <li>Monitor remote locations</li> <li>Compact and Rugged</li> <li>Operational longevity and proactive maintenance</li> <li>Robust safety in hazardous environments</li> </ul>                                                                                                                                                      |

| Sensor                                                                                                                                          | Application                                                                                                                                                                           | Key Product Features                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Why Choose This Sensor?                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><a href="#">85x1N Wireless Bluetooth® Vibration Sensor</a> | <ul style="list-style-type: none"> <li>• Pumps and pumping systems</li> <li>• Oil and Gas equipment monitoring</li> <li>• Conveyor systems</li> <li>• Paper and pulp mills</li> </ul> | <ul style="list-style-type: none"> <li>• High resolution FFT with edge-computing</li> <li>• Remote or Bluetooth® configuration via SensorConnect App</li> <li>• Piezoelectric design with wide 10 kHz bandwidth</li> <li>• Single-axis (8511n) or 3-axis (8531N) options</li> <li>• 2100 mAh battery for long-life periodic monitoring</li> <li>• ATEX C1D1, NEC Class I, Division I, ATEX Ex ia IIC certified</li> <li>• Ultra-compact 200g, 5 in<sup>3</sup> form factor</li> </ul>          | <ul style="list-style-type: none"> <li>• Wide bandwidth enables early fault detection</li> <li>• Provide proactive maintenance insights before damage or failure</li> <li>• Maximize battery life and network efficiency</li> <li>• Long operational life- up to 10 years</li> <li>• Robust safety for hazardous and high-risk zones</li> <li>• Reliable condition monitoring with minimized maintenance needs</li> </ul> |
| <br><a href="#">89x1N Wireless LoRaWAN® Vibration Sensor</a>   | <ul style="list-style-type: none"> <li>• Pumps and pumping systems</li> <li>• Oil and Gas equipment monitoring</li> <li>• Gearboxes and turbines</li> <li>• Steel Mill</li> </ul>     | <ul style="list-style-type: none"> <li>• High resolution FFT with edge-computing</li> <li>• Remote LoRaWAN® or Bluetooth® configuration via SensorConnect App</li> <li>• Piezoelectric design with wide 10 kHz bandwidth</li> <li>• Single-axis (8511n) or 3-axis (8531N) options</li> <li>• 2100 mAh battery for long-life periodic monitoring</li> <li>• ATEX C1D1, NEC Class I, Division I, ATEX Ex ia IIC certified</li> <li>• Ultra-compact 200g, 5 in<sup>3</sup> form factor</li> </ul> | <ul style="list-style-type: none"> <li>• Wide bandwidth enables early fault detection</li> <li>• Sends only critical data for maximum battery and network efficiency</li> <li>• Effortless installation in tight or complex locations</li> <li>• Up to 10-year battery life for minimal maintenance</li> <li>• Safe operation in hazardous and high-risk zones</li> </ul>                                                 |



# MONITOR WITHOUT THE COMPLEXITY OF WIRES

With TE Connectivity's N-Series, teams gain **real-time insight** with **minimal installation effort**, **long-lasting battery performance** and significantly **reduced cost and downtime**.

Have a unique challenge? We have you covered.

Discover how TE Connectivity's sensing solutions can transform your IoT applications. Our seasoned technical experts are only a click away. Click 'Connect with an Expert' to schedule a meeting. Access an invaluable reservoir of knowledge and experience and let us help you make the most informed decision for your project. Together, let's redefine the future of IoT.

## Connect With Us

We make it easy to connect with our experts and are ready to provide all the support you need. Visit [te.com/support](https://te.com/support) to chat with a Product Information Specialist.

## [te.com/sensors](https://te.com/sensors)

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