TE Connectivity (TE) is a global technology leader, providing connectivity and sensor solutions essential in today’s increasingly connected world. TE is one of the largest sensor companies in the world. Our sensors are vital to the next generation of data-driven technology.

With the growing expectation of being connected anytime and anywhere, wearable technology has evolved to be one of the largest growing industries. New opportunities in the market, such as the Internet of Things (IoT) and smart mobile devices, have accelerated the development of wearables since they provide many benefits to users. From consumer wearables that aid in a healthier lifestyle to medical wearables that help determine a patient’s vital signs, sensing components help bring these wearable technologies to life offering users a sense of safety, productivity and health incentives. As the wearable industry continues to advance, the need for more accurate, compact and reliable sensing technologies becomes necessary for proper long-term functionality in wearables.

**SENSOR SOLUTIONS FOR WEARABLES**

- **FORCE**
- **HUMIDITY**
- **PHOTO OPTIC**
- **PIEZO FILM**
- **POSITION**
- **PRESSURE**
- **TEMPERATURE**
- **VIBRATION**

**CONSUMER WEARABLE SOLUTIONS**
- Altimeter Watch
- Diving Watch / Computer
- Fitness Band
- Martial Arts Vest
- Multi-Mode Watch
- Ski Goggles
- Sleep Monitoring

**MEDICAL WEARABLE SOLUTIONS**
- Fall Detection
- Heart Pacemaker
- Prosthetics
- Protective Vest
- Sleep Apnea Treatment
- Vital Signs

**DEFENSE WEARABLE SOLUTIONS**
- Helmet Impact
- Soldier Activity
### FORCE SENSORS

**FX19**
The FX-1901 is a 1% load cell device with full scale ranges of 10, 25, 50, 100, and 200lbs compression. This low-cost technology enables force sensing in smart consumer and medical products.

**FX29**
The FX-2910 is a compact compression load cell that offers exceptional price-to-performance in a robust sensor package with a millivolt, analog or digital output signal.

**FS19**
The FS-19 load cell, with ranges from 500g to 3000g, uses proven MEMS sensor technology.

**FS20**
The FS-2010 low compression force sensor offers normalized zero and span for interchangeability and is thermally compensated for changes in zero and span with respect to temperature.

**FC22**
The FC-22 incorporates TESS1 proprietary sensor technology, which employs micromachined silicon piezoresistive strain gages fused with high temperature glass to a high performance stainless steel substrate.

**FC23**
The FC-23 measures direct force and is therefore not subject to lead-die fatigue failure. Operating at very low strains, microufused technology provides an essentially unlimited cycle life expectancy, superior resolution, and high over-range capabilities.

### HUMIDITY SENSORS

**HTU21D**
The HTU21D(FC) relative humidity sensor provides digital outputs for humidity and temperature in I2C formats.

**HTU31**
The HTU31 humidity & temperature sensor is one of the smallest and most accurate humidity sensors on the market. Available in digital and analog versions, the HTU31 provides fast response time, precision measurement, low hysteresis and sustained performance, even in the harshest environments.

### PHOTO OPTIC SENSORS

**ELM4000**
The ELM-4000 series emitter assembly has dual drive, lead frame construction, a pulse oximetry component and a clear epoxy lens. This sensor component provides leading accuracy in blood oxygen level.

**EPM4001**
The EPM-4001 photo optic detector assembly uses a silicon planar diffused photodiode specially designed for medical applications. It features high efficiency and fast response.

### POSITION SENSORS

**KMT32B**
The KMT32B series magnetic AMR angle sensor is based on an anisotropic magnetic resistance effect, i.e. it is sensing the magnetic field direction independently on the magnetic field strength for applied field strengths H>25 kA/m.

### PRESSURE SENSORS

**MS5607/MS5611/MS5637**
The MS5607, MS5611 and MS5637 are a new generation of high resolution alimeter sensors with SPI and I2C bus interface.

**MS5837**
The MS5837-02BA is a gel-filled, ultra-compact, water resistant pressure and temperature sensor module optimized for consumer devices such as fitness trackers, drones and wearables.

**MS5839**
The MS5839-02B is an ultra-compact pressure and temperature sensor that is designed to provide reliable and accurate measurements in harsh environments including high temperatures.

**MS5803**
The MS5803-01BA07 is a board mountable pressure and temperature sensor providing environmental physical measurements all-in-one: pressure, humidity, and temperature.

**MS5837**
The MS5837-02BA is a gel-filled, ultra-compact, water resistant pressure and temperature sensor module optimized for consumer devices such as fitness trackers, drones and wearables.

**MS5840**
The MS5840 is a low profile, ultra-compact, water resistant digital pressure and temperature sensor optimized for applications with small space constraints.

**MS5805**
The MS5805 sensor module includes a high-linearity pressure sensor and an ultra low power 24 bit ΔA ΔC with internal factory-calibrated coefficients. It provides a precise digital 24 Bit pressure and temperature value and different operation modes that allow the user to optimize for conversion speed and current consumption.

**MS5525DO**
The MS5525DO is a rugged engineered thermoplastic transducer is available in single and dual port configurations and can measure absolute, gauge, compound and differential pressure from 1 to 30psi.

### TEMPERATURE SENSORS

**Patient Monitoring Probes**
The patient monitoring probe designed for both disposable and reusable applications, provides highly accurate temperature measurements.

**TSYS Series**
The TSYS (Temperature System Sensor) digital temperature sensors provide industry-leading 0.1°C accuracy. The optimized microcircuit design allows fast conversion times along with very low power consumption.

**NiI00OSOT**
The NiI00OSOT is a thin-film nickel RTD element in an industry standard SOT23 configuration that provides a very fast time response along with accurate sensing over a broad operating temperature range.