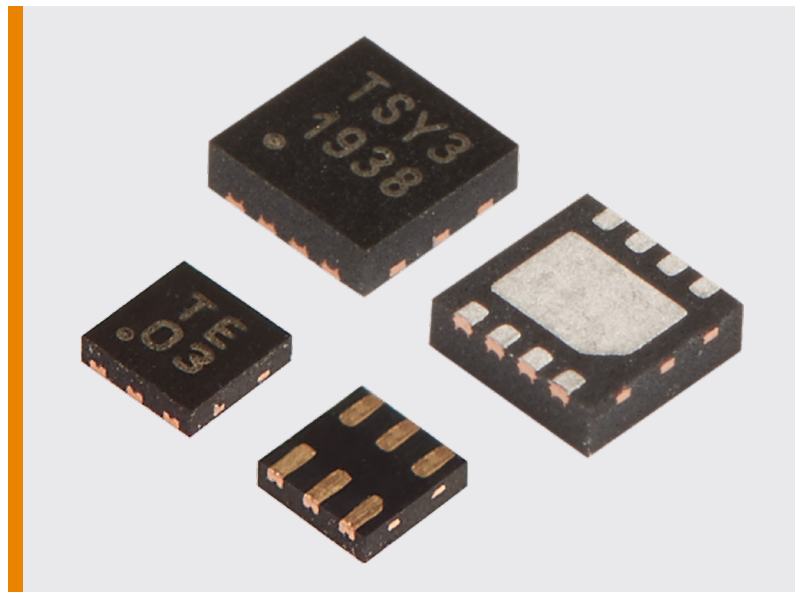INTRODUCING

TSYS03 MINIATURE DIGITAL TEMPERATURE SENSOR

- **Enable ultra-compact design with two different packages namely, TDFN8 and XDFN6**
- **Offer factory calibrated digital output with configurable I²C Interface**

Today, industrial, consumer or even medical sectors are adopting digitalization to collect sensor data. TE Connectivity (TE) has developed a new digital temperature sensor called TSYS03 to meet these needs. With its industry leading ultra-compact size of 1.5 x 1.5 mm, the TSYS03 enables lower thermal response time, offering an ideal solution for precise temperature sensing in applications with space constraints.

The TSYS03 is factory calibrated and provides accurate temperature measurements through several I²C configurable addresses. It's supply voltage range and low power consumption covers battery driven as well as automotive driven applications. With an extended operating range from -40°C to +125°C, the TSYS03 offers resolution up to ±0.05°C.

APPLICATIONS

- Industrial Control and food monitoring
- Medical probes and patient monitoring
- Vehicle battery monitoring
- Consumer goods and appliances
- HVAC and weather stations
- Smart Thermostats

KEY BENEFITS

- Enable ultra-compact design in two different packages, TDFN8 and XDFN6.
- Offer factory calibrated digital output with configurable I²C Interface.
- Facilitate extended operating range from -40°C to +125°C with resolution up to 0.05°C.
- Support improved ASIC (Application Specific Integrated Circuit) design with excellent price-to-performance ratio.
- Ensure lower conversion time with precise temperature sensing and factory compensated output.
- Provide a low power consumption sensor suitable for battery-driven applications.

PERFORMANCE

- High Accuracy ±0.5°C @ Temp.: 0°C - +60°C
- Adjustment of high accuracy temperature range on request
- I²C Interface up to 1MHz
- Programmable I²C Address
- Small IC-Package: TDFN8 2.5mm x 2.5mm and XDFN6 1.5mm x 1.5mm
- Low Supply Current < 5 µA (standby < 0.3 µA)
- Operating Temperature Range: -40°C - +125°C

TARGET MARKETS

- Industrial
- Medical
- Automotive
- Consumer
- Appliance

LEARN MORE

TSYS03 1.5mm x 1.5mm Model Detail Page
TSYS03 2.5mm x 2.5mm Model Detail Page
TSYS03 Datasheet
TSYS03 Product Overview Video
Digital Temperature Sensor Webinar
TSYS Series Solution Guide