TE SENSOR SOLUTIONS FOR HOME APPLIANCES
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TE Connectivity is one of the largest sensor companies in the world, with innovative sensor solutions that help customers transform concepts into smart, connected creations. With the recent acquisition of Measurement Specialties, a global designer and manufacturer of sensors and sensor-based systems, TE offers an unmatched range of both connectivity and sensor solutions. Sensor solutions include a rich portfolio of temperature, humidity, pressure and piezoelectric film technologies for a wide range of applications.

APPLICATION SOLUTIONS

Dishwasher
- Magneto-resistive sensor for spray arm block detection
- Temperature sensor for water temperature measurement and heater control

Clothes Dryer
- Humidity sensor for drying process control
- Thermopile for drying process control

Household Oven
- Pyrolytic cleaning and cooking regulation
- Temperature sensor for induction or glass ceramic cooking plates

Microwave Oven
- Humidity sensor for food humidity measurement
- Infrared temperature sensor for water/food temperature monitoring (contactless)

Washing Machine
- Temperature sensor for water temperature measurement and heater control
- Pressure sensor for water level detection and pump control

Cooktop
- Temperature sensor for induction or glass ceramic cooking plate control

Refrigerator
- Temperature sensor for fridge and freezer cabinet temperature control
- Humidity sensor for defrost energy management

Small Appliances
- Level/pressure sensor for control
- Temperature sensor for regulation
- Piezo film sensor for control buttons
## TE SENSOR SOLUTIONS FOR HOME APPLIANCES

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Humidity</th>
<th>Humidity</th>
<th>Humidity</th>
<th>Piezo Film</th>
<th>Position</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>HS1101LF</td>
<td>HTU3535PVBM/Wire</td>
<td>HTU383X/Wire</td>
<td>LDTC Family</td>
<td>KMY, KMZ</td>
<td>MS5525DSO</td>
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<tr>
<td>Package</td>
<td>Through hole TO39 with side opening plastic cap</td>
<td>Analog voltage RH and NTC temperature</td>
<td>Cost effective small size mini-module</td>
<td>Piezo film elements with or without mass and pins</td>
<td>Linear low field sensor</td>
<td>Board mount</td>
</tr>
</tbody>
</table>
| Type | Analog output | PTFE filter (optional) | Digital RH and temperature | Cantilever beam with vertical or horizontal pins | • High sensitivity 
• Ultra-low power (self generating) | 24-bit digital small outline sensor |
| Unique Features | • Very robust and recognized component capable of withstanding most of the applications in the humidity world in very cost effective ways | • Electronics fully protected (5 Volt) | • PTFE filter (optional) | Very low cost 
• High sensitivity (1 V/g) | • High sensitivity 
• Low hysteresis | • Single supply of 1.8 or 3.6Vdc |
| | | • Multiple connector choices | • Electronics fully protected (5 Volt) | • Ultra-low power (self generating) | • Linear to uniaxial field strength | • Top straight/ 
barb, flat top, o-ring seal |

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Temperature</th>
<th>Temperature</th>
<th>Temperature</th>
<th>Temperature</th>
<th>Temperature</th>
<th>Temperature</th>
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</thead>
<tbody>
<tr>
<td>Package</td>
<td>DO-35</td>
<td>QFN16, TDFN8</td>
<td>Wired component</td>
<td>Brass, copper or stainless steel closed-end tube</td>
<td>Brass, copper or stainless steel housing with integrated connector</td>
<td>PVC or TPE</td>
</tr>
</tbody>
</table>
| Type | NTC, Analog output, Glass coated | Digital output, 
I2C, SPI, PWM, SDM (convertible to analog voltage) | • Analog output 
Thin film platinum deposited on ceramic substrate, glass coated 
• Tube outline available 
• Connection via radial leads | • Corrosion resistant 
• Available with mounting tabs or clips | • Corrosion resistant 
• Different threads types 
• Connectors available | Overmolded |
| Unique Features | • Tight tolerance (±1%) 
• Max stability using high density (HD) chip 
• Hermetically sealed 
• Tinned & Nickel plated leads | • Low power 
• Small size 
• Calibrated and ready to use 
• 16 bit resolution | • Long term stability 
• Interchangeability 
• Small dimensions 
• Short response time 
• High electrical insulation | • Corrosion resistant 
• Different threads types 
• Connectors available | • Mounting clips available | • Mounting clips available |
| | | | | | | |

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Temperature</th>
<th>Pipe Mount Sensors</th>
<th>Pipe Mount Sensors</th>
<th>Boiler Sensors</th>
<th>Oven Sensors</th>
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<tbody>
<tr>
<td>Product</td>
<td>Temperature</td>
<td>Copper or Stainless Steel housing</td>
<td>Brass housing</td>
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<td>Rigid stainless steel housing</td>
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<tr>
<td>Package</td>
<td>Pipe Clamp Sensors</td>
<td>Overmolded</td>
<td>Screw</td>
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</tbody>
</table>
| Type | Plastic housing with metal insert | Epoxy potted | • Integrated connector 
• Corrosion resistant 
• Different threads types and connectors available | • Ceramic tube encapsulation 
• High temperature cable | • Easy integration/installation 
• Higher dielectric strength according to type |
| Unique Features | • Overmolded 
• Epoxy potted | • Fast response time 
• Moisture resistant construction | • | | |

**PAGE 3**
## PRODUCT AND APPLICATION MATRIX

<table>
<thead>
<tr>
<th></th>
<th>Force</th>
<th>Humidity</th>
<th>Piezo Film</th>
<th>Position</th>
<th>Pressure</th>
<th>Temperature</th>
<th>Vibration</th>
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<tbody>
<tr>
<td>Washing Machine</td>
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<td>Microwave Oven</td>
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<td>Cooking Plates</td>
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<td>Coffee Machines</td>
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### Quality Statements:
- AS/EN 9100
- EN 13980
- ESA 266
- ESCC266E
- ESCC 400C
- ISO 13485
- ISO 14001
- ISO 9001
- PART21G
- TS 16949

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**te.com/en/products/sensors.html**

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