E-SERIES  
(EH, ET, EP, EL, EP2, ER, EE)

The Temposonics® E-Series are very compact sensor models suitable for situations where space-constrained mounting is a critical factor. MTS Sensors offers different designs to meet the needs of various industrial applications.

This series features three rod models for in-cylinder integration: EH, ET, EE (embedded in cylinder) and three profile models with a slim housing: EP, EL and EP2. On the EP2 sensor, the position magnet can travel along the entire flat housing profile. The ER sensor has an aluminum cylinder with a guided driving rod which contains both the sensor element and the electronics. The position is detected via the solid extractable driving rod.

Typical applications for E-Series sensors are plastics processing, food & beverage processing, control systems and packaging.

**Output (resolution)**

<table>
<thead>
<tr>
<th></th>
<th>EH</th>
<th>ET</th>
<th>EP / EL</th>
<th>EP2</th>
<th>ER</th>
<th>EE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>Infinite</td>
<td>16 bit*</td>
<td>Infinite</td>
<td>Infinite</td>
<td>Infinite</td>
<td>Infinite</td>
</tr>
<tr>
<td>Voltage</td>
<td>Infinite</td>
<td>16 bit*</td>
<td>Infinite</td>
<td>Infinite</td>
<td>Infinite</td>
<td>Infinite</td>
</tr>
<tr>
<td>Start/Stop</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>SSI</td>
<td>20 μm</td>
<td>5 μm</td>
<td>20 μm</td>
<td>20 μm</td>
<td>20 μm</td>
<td>20 μm</td>
</tr>
<tr>
<td>CANopen</td>
<td>10 μm</td>
<td>–</td>
<td>10 μm</td>
<td>10 μm</td>
<td>10 μm</td>
<td>–</td>
</tr>
<tr>
<td>IO-Link</td>
<td>5 μm</td>
<td>–</td>
<td>5 μm</td>
<td>5 μm</td>
<td>5 μm</td>
<td>–</td>
</tr>
</tbody>
</table>

**Operating conditions**

- **Temperature**
  - EH / EP / EL / EP2 / ER: −40…+75 °C (−40…+167 °F)
  - ET (Analog): −40…+85 °C (−40…+185 °F)
  - ET (SSI): −40…+60 °C (−40…+140 °F)
  - ET (Start/Stop): −40…+105 °C (−40…+221 °F)
  - EE: −40…+85 °C (−40…+185 °F)

- **Shock test** 100 g (single shock), IEC standard 60068-2-27
- **Vibration test**
  - EH / EP / EL / EE: 10 g / 10…2000 Hz
  - ET: 20 g / 10…2000 Hz
  - EP2: 8 g / 10…2000 Hz
  - EE: 5 g / 10…2000 Hz

**Design**

- **Stroke length**
  - EH / EE: 50…2540 mm (2…100 in.)
  - ET / EP / EL / EP2: 50…3000 mm (2…118 in.)
  - ER: 50…1500 mm (2…60 in.)

**Accuracy**

- **Linearity** ≤ ±0.02 % F.S.

**Electrical connection**

- **Operating voltage** +24 VDC (−15 / +20 %)
- **Current** Infinite
- **Voltage** Infinite
- **Start/Stop** **
- **SSI** 20 μm
- **CANopen** 5 μm
- **IO-Link** 5 μm

* Minimum 1 μm depending on stroke length
** Controller dependent

More information available at:
www.mtssensors.com