TE Connectivity’s (TE) T40 platform automotive position sensor is a non-contact position sensor measuring travel position (or angle position) in transmission, chassis, engine, steering, clutch, and brake applications. It can be configured with analog or PWM output.

The core of this sensor consists of a dual-die 3D-Hall technology IC. A permanent magnet attached to the moving component will generate a stable magnetic field. The sensor detects the travel or angle of the target magnet by sensing the magnetic flux density (magnitude) in multiple axes, which are then transformed to output position signal(s). The dual complementary outputs are independent, originating from separate and isolated silicon dies, called dual die.

This platform sensor is designed for harsh automotive environments, such as powertrain applications with high temperature, vibration, shock and sealing requirements.

**PRODUCT HIGHLIGHTS**

- Non-contact sensing for linear movements (angular sensing available)
- Robust in harsh environments
- Flexibility in functionality and communication protocol via programming

**PRODUCT SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Solution Name</th>
<th>Platform Position Sensor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Focus</td>
<td>Transmission, Drivetrain, Pedal Position Sensing</td>
</tr>
<tr>
<td>Sensor Type</td>
<td>Linear/Angular Position Sensor</td>
</tr>
</tbody>
</table>

**PART NUMBER**

2343826-2
T40 Platform Position Sensor
for the Automotive, Industrial and Commercial Transport Industry

FEATURES & BENEFITS
• Non-contact sensing for linear movements (angular sensing available)
• Robust in harsh environments: vibration, shock, operating temperature up to +150°C
• PWM interface (analog or SENT also possible)
• Small geometry
• Fully redundant sensor

MAIN SPECIFICATIONS

<table>
<thead>
<tr>
<th>Output Type</th>
<th>Standard Configuration</th>
<th>Programmable (same Hardware)</th>
<th>New Hardware and Programming</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Type</td>
<td>PWM (500 Hz)</td>
<td>PWM Frequency: 250, 500, 1K, 2K</td>
<td>Single output, analog output, SENT output</td>
<td>-</td>
</tr>
<tr>
<td>Linear Range</td>
<td>±12 mm</td>
<td>Up to ±50 mm (arc length sensing for rotary applications)</td>
<td>Up to ±50 mm (arc length sensing for rotary applications)</td>
<td>Travel range depends on airgap and magnet selection</td>
</tr>
<tr>
<td>Rotary Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply Voltage</td>
<td>5V ± 0.25V</td>
<td></td>
<td></td>
<td>Battery voltage 12V, 16V max, sleep mode -</td>
</tr>
<tr>
<td>Transfer Function</td>
<td></td>
<td>Flexible 10 &amp; 90% DC Guard bands, 3.33% DC/mm (80/24)</td>
<td>Flexible Any</td>
<td>-</td>
</tr>
<tr>
<td>Magnet</td>
<td>TE P/N 2290217 (8 x 18 x 10 mm)</td>
<td>Flexible Any</td>
<td>Magnet selection depends on travel range and airgap</td>
<td></td>
</tr>
<tr>
<td>Airgap</td>
<td>5.20 ±0.25 mm</td>
<td>Up to 8 mm in general</td>
<td>Up to 8 mm in general</td>
<td>Airgap depends on travel range and magnet selection</td>
</tr>
</tbody>
</table>

DIMENSIONS

| Width 32.90 mm       | Length 41.13 mm        | Height 14.60 mm            |

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