## FEATURES
- **Presence** and **proximity** sensing up to 1.5 m
- Programmable emitter current
- Upper and lower thresholds, and interrupt functions
- **16-bit resolution**
- Low profile of 0.75 mm
- Connects directly to a microcontroller via I²C
- Fully integrated solutions with infrared emitter, proximity photodiode, and signal conditioning IC

## APPLICATIONS
- Mobile devices (e.g. smartphones, touch phones, PDAs, GPS) for touch screen locking, power saving
- Automotive for presence detection
- Attract mode engagement
- Automatic doors, faucets, and toilets
- Robots for cliff detection and docking
- Toys for edge of table detection and collision avoidance

## COMPETITIVE ADVANTAGE
- Sensors include **16-bit** ambient light sensor at no extra cost
- Optical noise suppression

<table>
<thead>
<tr>
<th>Part Number</th>
<th>L (mm)</th>
<th>W (mm)</th>
<th>H (mm)</th>
<th>IR LED</th>
<th>Proximity</th>
<th>ALS</th>
<th>Interrupt</th>
<th>Package</th>
<th>Range (m)</th>
<th>Remark</th>
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<tbody>
<tr>
<td>VCNL4020X01</td>
<td>4.90</td>
<td>2.40</td>
<td>0.83</td>
<td>•</td>
<td>•</td>
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<td>•</td>
<td>FAM</td>
<td>0.2</td>
<td>Highest operating temperature in market, AEC-Q101 qualified</td>
</tr>
<tr>
<td>VCNL4030X01</td>
<td>4.00</td>
<td>2.36</td>
<td>0.75</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td>FAM</td>
<td>0.3</td>
<td>High power IRED in one small package, AEC-Q101 qualified</td>
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<tr>
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<td>2.36</td>
<td>0.75</td>
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<td>FAM</td>
<td>0.3</td>
<td>Lowest profile package, AEC-Q101 qualified</td>
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<tr>
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<td>1.10</td>
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<td>•</td>
<td>•</td>
<td>PCB</td>
<td>0.2</td>
<td>Smallest package in the market, improved ALS with Filtron™</td>
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<tr>
<td>VCNL4200</td>
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<td>3.00</td>
<td>1.80</td>
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<td>•</td>
<td>•</td>
<td>PCB</td>
<td>1.5</td>
<td>1.5 m proximity</td>
</tr>
</tbody>
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sensorstechsupport@vishay.com

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