



# PROXIMITY SENSORS

## LIGHT TO DIGITAL - VCNL4X / VCNL3X SERIES

### 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 I<sup>2</sup>C

Fully integrated solutions with infrared emitter, proximity photodiode, and signal conditioning IC

### COMPETITIVE ADVANTAGE

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



### 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



AUTOMOTIVE



TOUCHSCREENS



SENSORS



ROBOTS

Part Number	L (mm)	W (mm)	H (mm)	IR LED	Proximity	ALS	Interrupt	Package	Range (m)	Remark
<a href="#">VCNL4020X01</a>	4.90	2.40	0.83	•	•	•	•	FAM	0.2	Highest operating temperature in market, AEC-Q101 qualified
<a href="#">VCNL4030X01</a>	4.00	2.36	0.75	•	•	•	•	FAM	0.3	High power IRED in one small package, AEC-Q101 qualified
<a href="#">VCNL3030X01</a>	4.00	2.36	0.75	•	•		•	FAM	0.3	Lowest profile package, AEC-Q101 qualified
<a href="#">VCNL4040</a>	4.00	2.00	1.10	•	•	•	•	PCB	0.2	Smallest package in the market, improved ALS with Filtron™
<a href="#">VCNL4200</a>	8.00	3.00	1.80	•	•	•	•	PCB	1.5	1.5 m proximity

[sensorstechsupport@vishay.com](mailto:sensorstechsupport@vishay.com)