

Smoke Detector Solution With a Proximity Sensor + LEDs

Small and digital smoke detection!



The DNA of tech.®

Working Principle



Blue LED

465 nm



VLDB1232G

Proximity Sensor
(Integrated PD + LED driver)



VCNL3036X01

IR LED

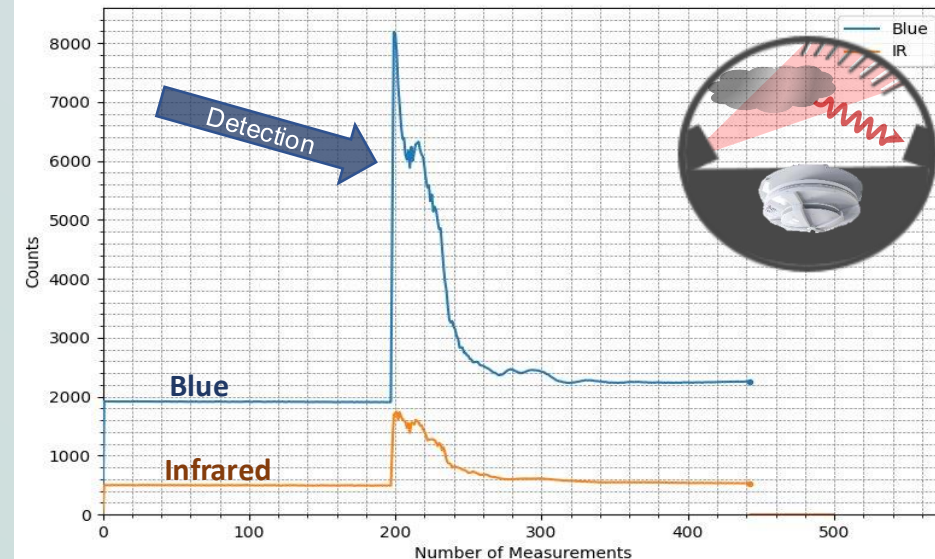
940 nm



VSMY2940

High Sensitivity digital proximity sensor VCNL3036 is sensitive to visible and IR light and has three integrated LED drivers. These can be used to drive any three colors to create custom smoke detection profiles and scenarios

Sensor response to smoke



The ratio between the blue light and IR light response can be used to determine whether it is smoke or steam, such as from cooking. Typically, smoke has a higher ratio of IR reflection due to the larger particle sizes present in fire smoke.



Application Note