

### Plug-and-Play Version with Integrated Two-Stage Amplifier

## Diff|2 – New Line of Differential Pyroelectric Detectors

LASER COMPONENTS has been offering its innovative differential pyroelectric detectors in a 4 pin TO39 package for over a year. Differential operation results in a significant increase of the signal to noise ratio. This is because the output signal is doubled with this configuration while the noise only grows with the square root, the improvement in signal to noise is approximately 1.41 over a standard single ended pyroelectric detector. The detector outputs two amplified signals separately and any interference signals are eliminated when the outputs are subtracted. However this device is not pin compatible with many instruments currently in service. If you need a drop in replacement for an existing pyro sensor our Diff|2 (LD2120) now comes in a standard three pin housing with single supply, ground and signal pins. The Diff|2 has a differential amplifier within the housing generating a single output with twice the signal strength.

These devices are used in NDIR and FTIR spectroscopy as well as flame and fire detection. They are inexpensive, robust and highly sensitive in the IR region of the spectrum.

### More Information

[www.lasercomponents.com/uk/product/differential-pyroelectric-detector/](http://www.lasercomponents.com/uk/product/differential-pyroelectric-detector/)

### Trade Shows

**automatica**, June 19 - 22, 2018, Messe München, Germany, **Booth B5.501**  
**Sensor+Test**, June 26 - 28, 2018, Messe Nürnberg, Germany, **Booth 1.256**  
**Sensors Expo & Conference**, June 27 - 28, 2018, San Jose, CA, USA, **Booth 225**  
**SPIE Optics+Photonics**, August 19 - 23, 2018, San Diego, CA, USA, **Booth 527**  
**Photon 2018**, September 04 - 05, 2018, Aston University, **Booth 5**  
**Photonex Europe**, October, 10 - 11, 2018, Ricoh Arena, Coventry, UK, **Booth D15**  
**Vision**, November 06 - 08, 2018, Messe Stuttgart, Germany, **Booth 1G31**  
**electronica**, November 13 - 16, 2018, Messe München, Germany, **Booth B3.524**

### The Company

LASER COMPONENTS specialises in the development, manufacture, and sale of components and services in the laser and optoelectronics industry. At LASER COMPONENTS, we have been serving customers since 1982 with sales branches in five different countries. We have been producing in house since 1986 with production facilities in Germany, Canada, and the United States. In-house production makes up approximately half of our sales revenue. A family-run business, we have more than 220 employees worldwide.