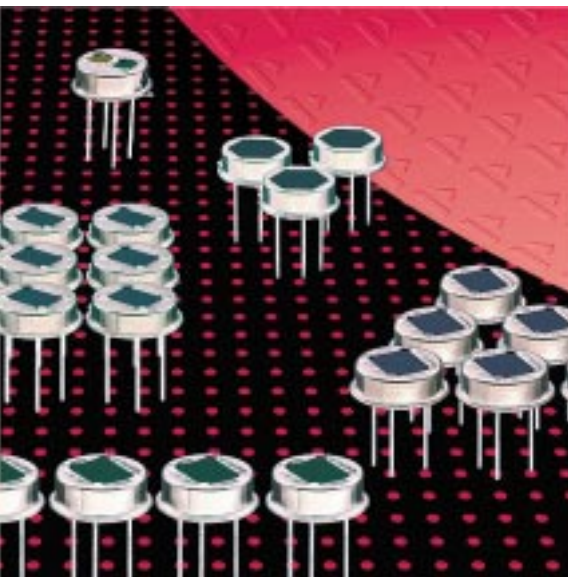


Pyroelectric Infrared Detectors

# Dual Element Detectors LHi 954 / 958



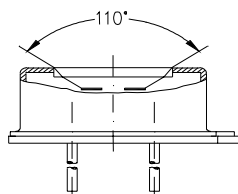
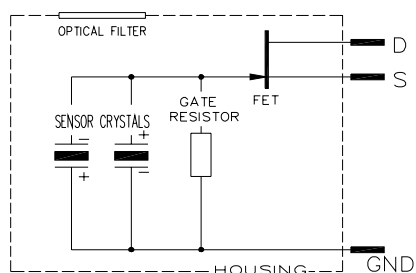
**TO-39 / TO-5 housing**

**High reliability**

**Well proven design**

The **LHi 954** and **LHi 958** pyroelectric infrared-detectors have been a world standard for more than 10 years. They both are dual element types with FET in source follower connection. The **LHi 954** detector is available in **TO-39** housing with standard infrared filter whereas the **LHi 958** is the same detector in a **TO-5** housing with standard infrared filter.

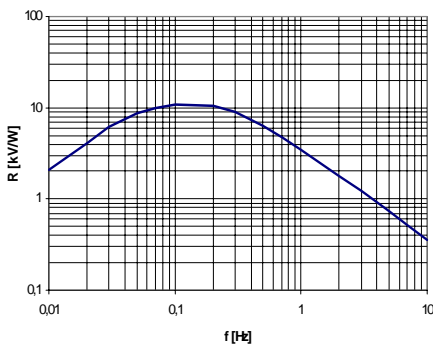
It offers a highly stable responsivity with excellent common mode performance (match) and low noise .



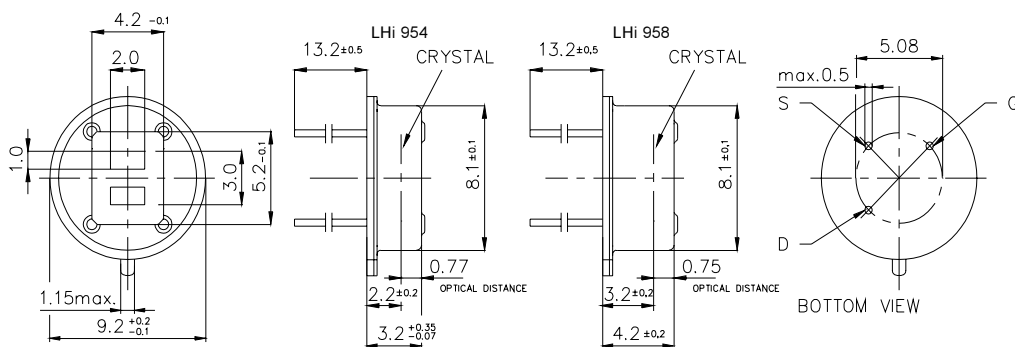
Field of View

| Parameters                       | LHi  |                       | 954 / 958            |  | units           | condition                   |
|----------------------------------|------|-----------------------|----------------------|--|-----------------|-----------------------------|
|                                  | min  | typical               | max                  |  |                 |                             |
| <b>Element size</b>              |      | 2x1                   |                      |  | mm <sup>2</sup> | (2 elements)                |
| <b>Responsivity</b>              | 3000 | 3700                  |                      |  | V/W             | 100°C, 1 Hz                 |
| <b>Match</b>                     |      | 1                     | 10                   |  | %               |                             |
| <b>Noise</b>                     |      | 20                    | 50                   |  | µVpp            | 25°C, 0,3...10Hz            |
| <b>Offset Voltage</b>            | 0,2  |                       | 1,50                 |  | V               | R <sub>s</sub> =47kΩ, 25°C  |
| <b>NEP</b>                       |      | 8,1x10 <sup>-10</sup> | 25x10 <sup>-10</sup> |  | W √Hz           | 1Hz Bw, 100°C, 1 Hz         |
| <b>D*</b>                        |      | 5,6x10 <sup>7</sup>   | 17,5x10 <sup>7</sup> |  | cm √Hz/W        | 1Hz Bw, 100°C, 1 Hz         |
| <b>Output Impedance</b>          |      | 5                     | 10                   |  | kΩ              | R <sub>s</sub> =47kΩ, 25°C. |
| <b>Operating Voltage</b>         | 2    |                       | 15                   |  | V               | R <sub>s</sub> =47kΩ, 25°C  |
| <b>Field of View, horizontal</b> |      | 110°                  |                      |  |                 | unobstructed                |
| <b>Field of View, vertical</b>   |      | 110°                  |                      |  |                 | unobstructed                |
| <b>Operating Temp.</b>           | -40  |                       | 85                   |  | °C              | non permanent               |
| <b>Storage Temperature</b>       | -40  |                       | 85                   |  | °C              | non permanent               |

Right for modification reserved / WS / 29.6.2001



Frequency Response



Dimensions in mm

Europe:  
**PerkinElmer** Optoelectronics GmbH  
 Wenzel Jaksch Str 31  
 Wiesbaden / Germany  
 Phone +49(0)611 492 0  
 Fax +49(0)611 492 170

USA:  
**PerkinElmer** Optoelectronics  
 2175 Mission College Blvd  
 Santa Clara, CA 95054  
 Phone +408 565 0830  
 Fax +408 565 0703

Asia:  
**PerkinElmer** Optoelectronics  
 47, Ayer Rajah Crescent #06-12  
 Singapore 139947  
 Phone +65 775 2022  
 Fax +65 775 1008

