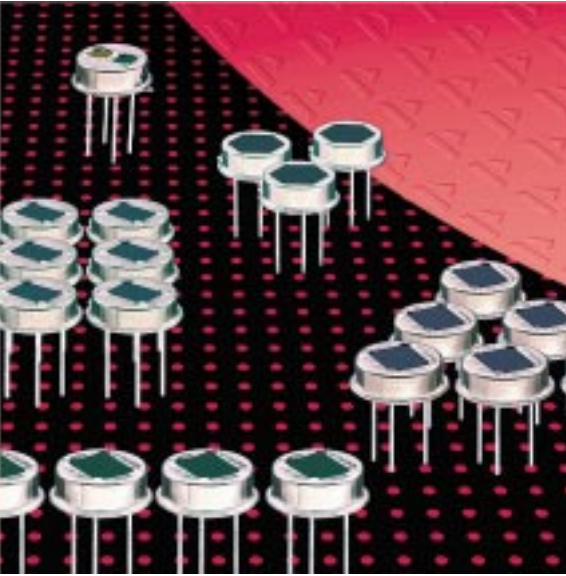


## Pyroelectric Infrared Detectors

## Dual Element Detectors LHi 874, LHi 878



## TO-39 / TO-5 housing

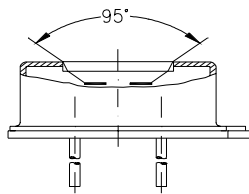
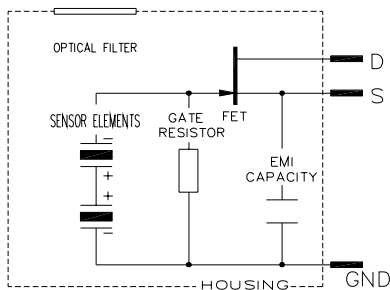
## Competitive cost version

## Designed for motion control

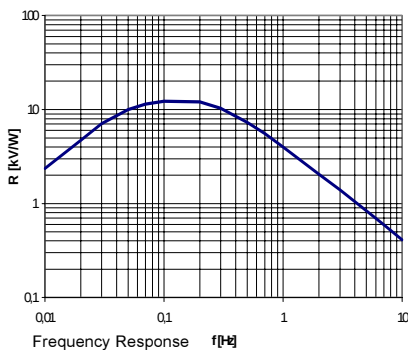
The **LHi 874** and **LHi 878** pyroelectric infrared-detector series are the standard dual element design recommended for all variants of motion control. They include a dual element pyro-electric ceramic with FET in source follower connection.

The **LHi 874** is available as **TO-39**, whereas **LHi 878** detector is available in **TO-5** housing with standard infrared filter. They both offer high responsivity with excellent common mode performance (match) and low noise at steady state and temperature changes.

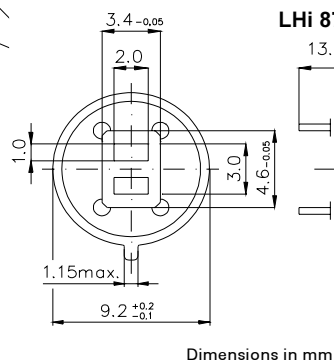
For both variants RF improved options are available.



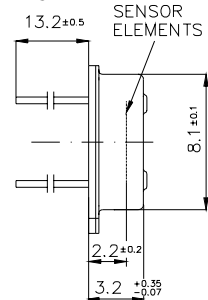
Field of View



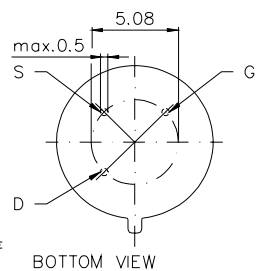
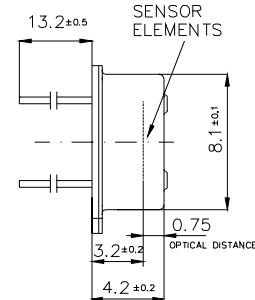
| Parameters              | LHi 874/ 878      |                       |                      |                 |                            |
|-------------------------|-------------------|-----------------------|----------------------|-----------------|----------------------------|
|                         | min               | typical               | max                  | units           | condition                  |
| Element size            |                   | 2x1                   |                      | mm <sup>2</sup> | (2 elements)               |
| Responsivity            | 3 300             | 4000                  |                      | V/W             | 100°C, 1 Hz                |
| Match                   |                   | 1                     | 10                   | %               |                            |
| Noise                   |                   | 20                    | 50                   | μVpp            | 25°C, 0,3...10Hz           |
| Offset Voltage          | 0,2               |                       | 1,55                 | V               | R <sub>s</sub> =47kΩ, 25°C |
| NEP                     |                   | 7,5x10 <sup>-10</sup> | 28x10 <sup>-10</sup> | W √Hz           | 1Hz Bw, 100°C, 1 Hz        |
| D*                      | 5x10 <sup>7</sup> | 19x10 <sup>7</sup>    |                      | cm √Hz/W        | 1Hz Bw, 100°C, 1 Hz        |
| Output Impedance        |                   | 5                     | 10                   | kΩ              | R <sub>s</sub> =47kΩ, 25°C |
| Operating Voltage       | 2                 |                       | 15                   | V               | R <sub>s</sub> =47kΩ, 25°C |
| Field of View, vertical |                   | 95                    |                      | °               | unobstructed               |
| horizontal              |                   | 90                    |                      | °               | unobstructed               |
| Operating Temperature   | -40               |                       | 85                   | °C              | non permanent              |
| Storage Temperature     | -40               |                       | 85                   | °C              | non permanent              |



LHi 874



LHi 878



BOTTOM VIEW

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