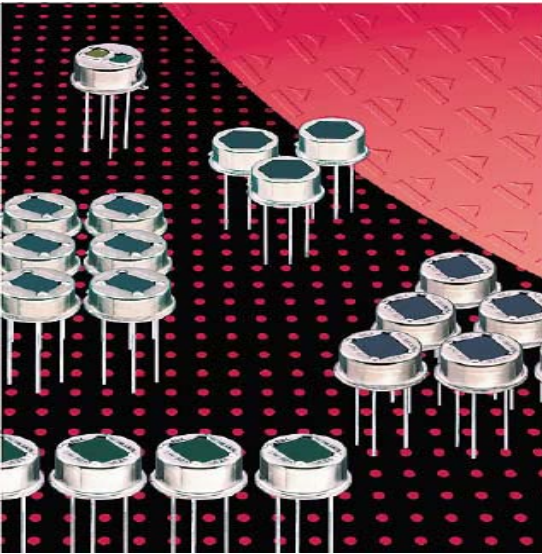


# Quad Element Detector LHi 1148



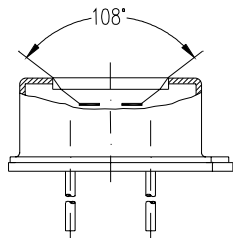
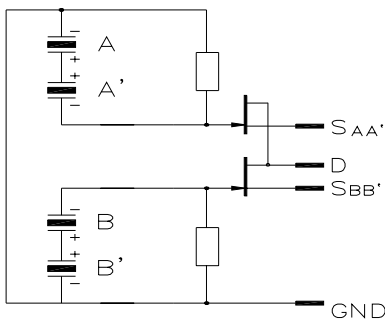
**Four elements in two pairs**

**Two FET outputs, inverse polarity**

**Designed for redundant PIR alarms**

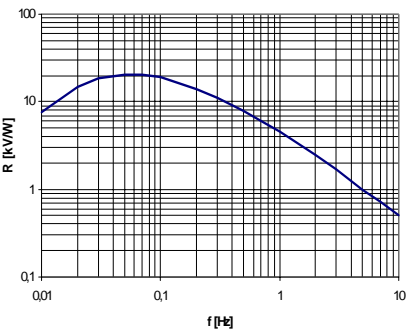
The **LHi 1148** pyroelectric infrared detector is designed for high end PIR alarm applications. It includes a Quad type pyroelectric ceramic with 4 sensitive elements connected to two FET source follower circuits. Thus it provides for dual channel output. One channel is inverse to the other.

The **LHi 1148** detector is available in **TO-5** housing with standard infrared filter. It offers excellent common mode performance (match) and low noise.

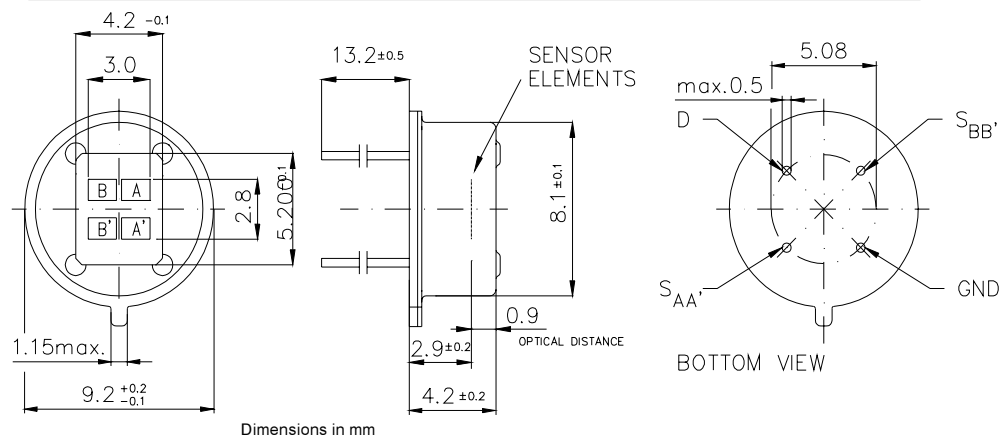


Field of View

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Frequency Response



Parameters	LHi 1148			units	condition
	min	typical	max		
<b>Element size</b>	1,375x1			mm <sup>2</sup>	(4 elements)
<b>Responsivity</b>	3 500	4 500		V/W	100°C, 1 Hz
<b>Match</b>	1	10		%	
<b>Noise</b>	30	75		µVpp	25°C, 0,3...10Hz
<b>Offset Voltage</b>	0,2	1,55		V	R <sub>s</sub> =47kΩ, 25°C
<b>NEP</b>	8,6x10 <sup>-10</sup>	28x10 <sup>-10</sup>		W √Hz	1Hz Bw, 100°C, 1 Hz
<b>D*</b>	5x10 <sup>-7</sup>	14x10 <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>	108°				unobstructed
<b>Field of View, vertical</b>	67°				unobstructed
<b>Operating Temp.</b>	-40	85		°C	non permanent
<b>Storage Temperature</b>	-40	85		°C	non permanent

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