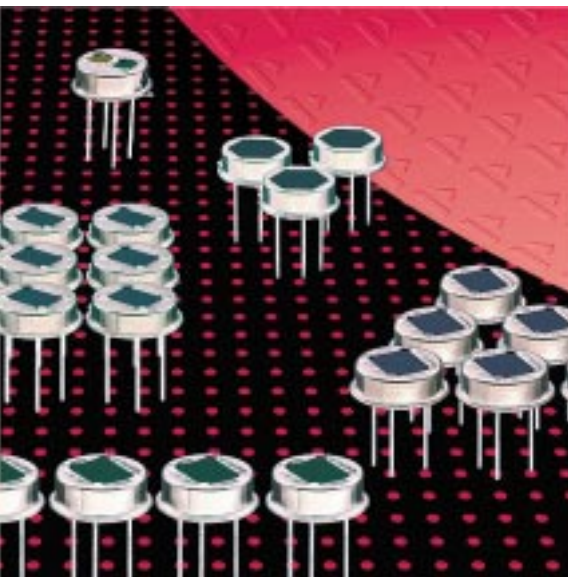


Pyroelectric Infrared Detectors

# Dual Channel Detector LHi 814 Q.../Q...



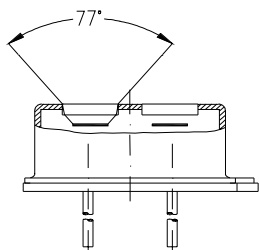
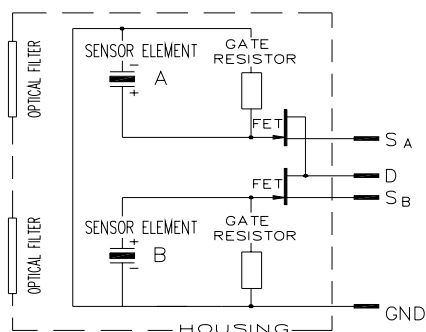
Two separate elements, size 1,5x1,5

Individual spectral window for each element

Designed for Gas Analysis applications

The **LHi 814** pyroelectric infrared-detector series is specially designed for gas analysis and monitoring applications. It includes two pyroelectric elements, each having a FET in source follower connection. Thus two outputs are given.

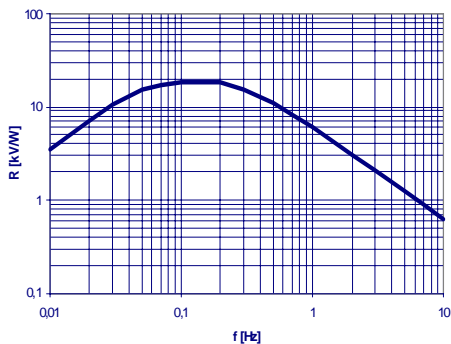
The detector is encapsulated into **TO-5** housing with two separated spectral narrow band infrared windows. There are many filters available for the selected spectral bandwidths. Often one channel is used as reference channel.



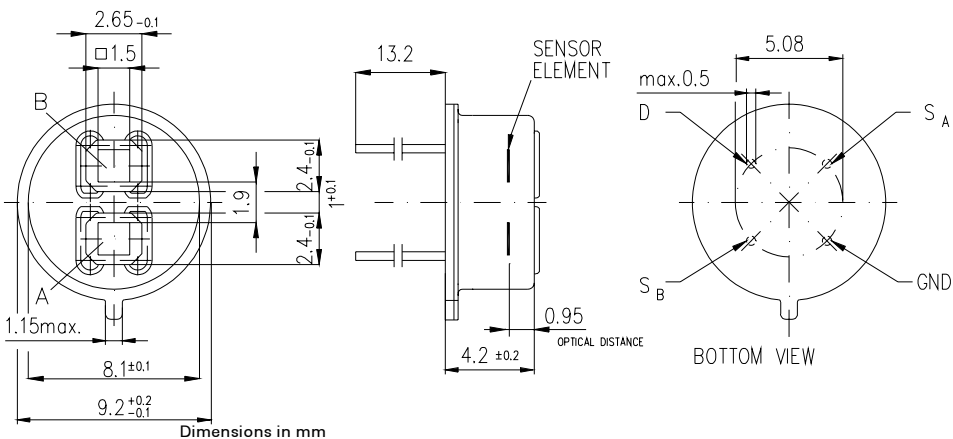
Field of View

Parameters	LHi 814			units	condition
	min	typical	max		
<b>Element size</b>		1,5x1,5		mm <sup>2</sup>	
<b>Responsivity</b>	500	640		V/W	1Hz Bw, 100°C, 10 Hz
<b>Noise</b>		600	1200	nV <sub>RMS</sub>	25°C, 10Hz
<b>Offset Voltage</b>	0,2		1,5	V	R <sub>s</sub> =47kΩ, 25°C
<b>NEP</b>		9,4x10 <sup>-10</sup>	24x10 <sup>-10</sup>	W √Hz	1Hz Bw, 100°C, 1 Hz
<b>D*</b>	6x10 <sup>7</sup>	16x10 <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>		77°			unobstructed
<b>Field of View, vertical</b>		95°			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



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

