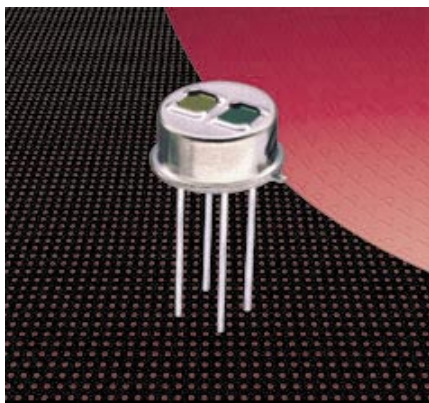


Measurement Applications

Pyroelectric Detector LHi 814

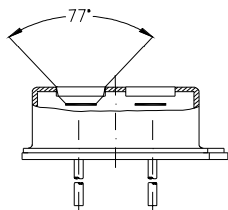
Dual channel single element configuration including two optical windows



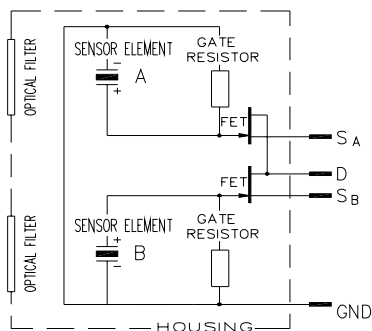
Special Design for Gas Absorption Detection Applications

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.

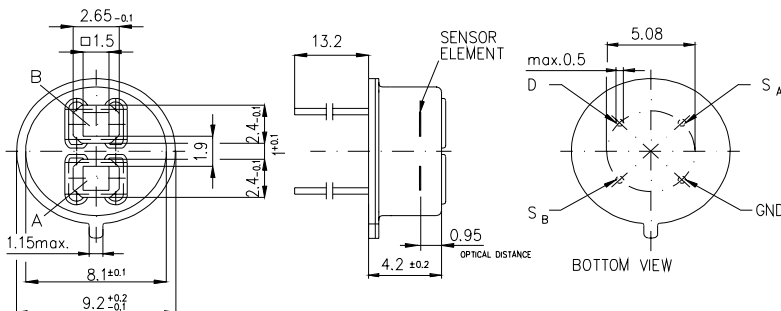
The detector is encapsulated into **TO-5** housing with two separated spectral narrow band infrared windows. There are many filters available for the selected spectral bandwidths. Often one channel is used as reference channel.



Field of View



Parameters	LHi 814			units	condition
	min	typical	max		
Element size	1,5x1,5			mm ²	
Responsivity	500	640		V/W	1Hz Bw, 100°C, 10 Hz
Noise		600	1200	nV _{RMS}	25°C, 10Hz
Offset Voltage	0,2		1,5	V	R _s =47kΩ, 25°C
NEP		9,4x10 ⁻¹⁰	24x10 ⁻¹⁰	W √Hz	1Hz Bw, 100°C, 1 Hz
D*	6x10 ⁷	16x10 ⁷		cm √Hz/W	1Hz Bw, 100°C, 1 Hz
Output Impedance		5	10	kΩ	R _s =47kΩ, 25°C
Operating Voltage	2		15	V	R _s =47kΩ, 25°C
Field of View, horizontal	77°				unobstructed
vertical	95°				unobstructed
Operating Temp.	-40		85	°C	non permanent
Storage Temperature	-40		85	°C	non permanent



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