

# SINGLE ELEMENT PYROS FOR GAS MONITORING



## LHi 807, PYS 4198 – High Sensitivity Pyro

### Applications

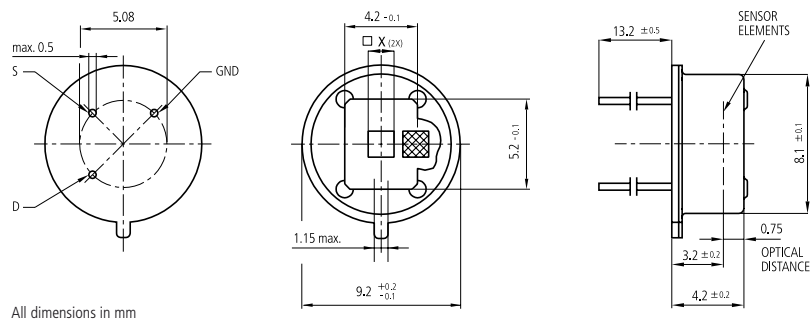
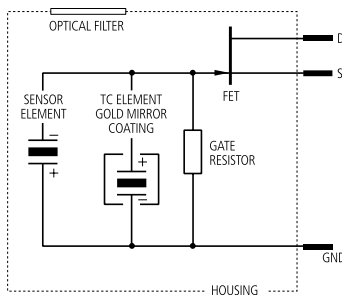
- Gas sensing and monitoring

### Features and Benefits

- TO-5 metal housing
- Selection of narrow band filters
- Thermal compensation

### Product Description

The LHi 807 TC series has become a standard solution for gas-sensing applications. It is available with a range of narrow band filters, as specified on page 7 of this catalog for various gas species. The LHi 807 is usually supplied with temperature compensation by a separate “blind” sensing element. Similar features and benefits are included with the PYS 4198 which has large element size of 2 x 2 to offer more signal for non-focused optical systems. It is offered with the thermal compensation element for compensation of thermal effects caused by temperature changes of the housing.



### LHi 807, PYS 4198 – High Sensitivity Pyro

Parameter	Symbol	LHI 807 TC	PYS 4198 TC	Unit	Remark
Responsivity, min.	$R_{min}$	2.2	1.2	kV/W	f = 1 Hz
Responsivity, typ.	R	3.5	2.0	kV/W	f = 1 Hz
Match, max.	$M_{max}$	-	-	%	
Noise, max.	$N_{max}$	50	50	$\mu V_{pp}$	
Noise, typ.	$N_{typ}$	15	10	$\mu V_{pp}$	0.4...10 Hz / 20° C
Spec. detectivity	$D^*$	17	23	$10^7 cm^* \sqrt{Hz/W}$	0.4...10 Hz / 20° C
Field of view, horizontal	FoV	135°	126°		
Field of view, vertical	FoV	122°	105°		
Source voltage		0.2...1.5	0.2...1.5	V	47 k $\Omega$ / 20° C / 5 V
Height	h	4.2	4.2	mm	
Optical element location	he / ho	3.2 / 0.75	2.9 / 1.1	mm	
Filter size	X / Y	5.2 / 4.2	5.2 / 4.2	mm	