

PYROELECTRIC DUAL ELEMENT DETECTORS FOR INTRUSION ALARM

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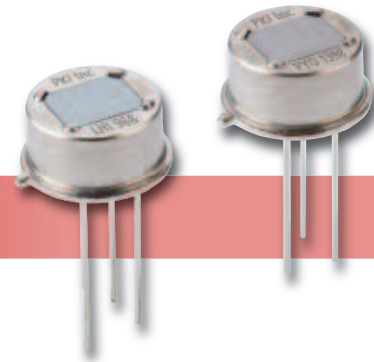
LHi 968, PYD 1398 – High-End Pyro

Applications

- Intrusion alarm
- High-end motion sensors

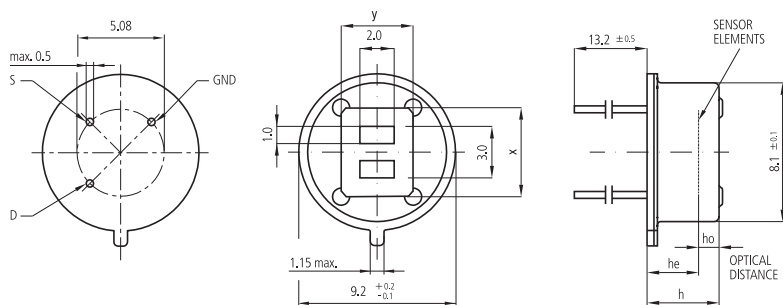
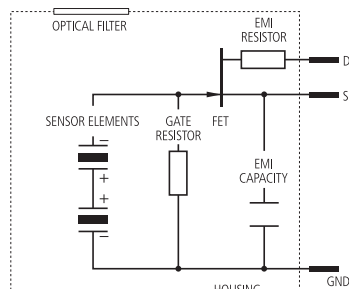
Features and Benefits

- TO-5 metal housing
- Improved EMI protection
- Improved WLI



Product Description

The LHi 968 series with standard Dual Element configuration is performance-proven in high-end applications. The LHi 968 design provides for a reduced sensitivity to EMI and excellent White Light Immunity (WLI). The PYD 1398 has higher RF immunity and is optionally available with grading for lower white light sensitivity.



All dimensions in mm

LHi 968, PYD 1398 – High-End Pyro

Parameter	Symbol	LHi 968	PYD 1398	Unit	Remark
Responsivity, min.	R_{min}	3.3	3.3	kV/W	$f = 1 \text{ Hz}$
Responsivity, typ.	R_{typ}	4.0	4.0	kV/W	$f = 1 \text{ Hz}$
Match, max.	M_{max}	10	10	%	
Noise, max.	N_{max}	50	50	μV_{pp}	0.4...10 Hz / 20° C
Noise, typ.	N_{typ}	20	20	μV_{pp}	0.4...10 Hz / 20° C
Spec. detectivity	D^*	19	19	$10^7 \text{ cm}^* \sqrt{\text{Hz/W}}$	1 Hz / 1 Hz BW / 20° C
Field of view, horizontal	FoV	100°	100°		Unobstructed
Field of view, vertical	FoV	100°	100°		Unobstructed
Source voltage		0.2 - 1.5	0.2 - 1.5	V	47 k Ω / 20° C / 5 V
Operating voltage		2.0 ... 12	2.0 ... 12	V	47 k Ω / 20° C
EMI performance		***	****		
WLI		***	****		
Height	h	4.2	4.2	mm	
Optical element location	he / ho	2.6 / 0.95	2.6 / 0.95	mm	
Filter size	X / Y	5.2 / 4.2	5.2 / 4.2	mm	

*** Improved, **** Excellent