

Pyroelectric Four-Element Detectors For Ceiling-Mount

LHi 1128, PYQ 1398, PYQ 1348 – Single-Output “Quad” Pyro

Applications

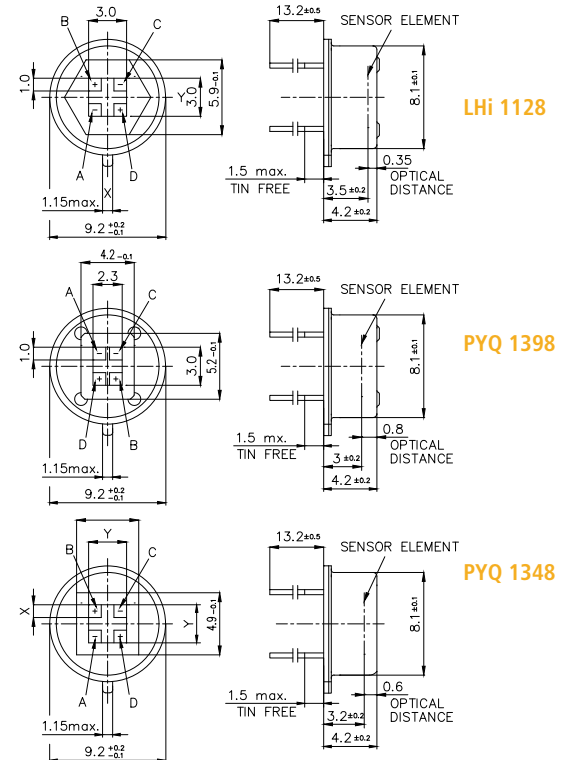
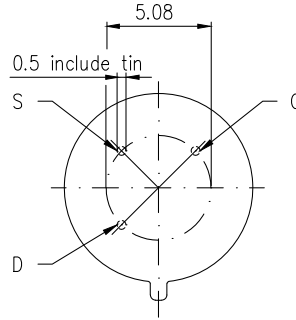
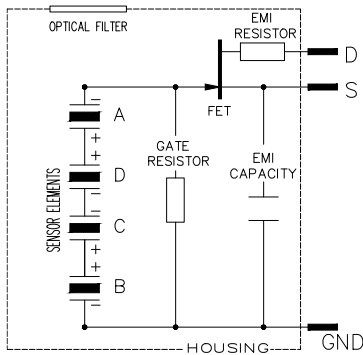
- Ceiling-Mount Alarms
- Ceiling-Mount Light Switches

Features and Benefits

- TO-5 metal housing
- Different window sizes
- Single Channel output

Product Description

In this series of four-element “Quad” Detectors, all four elements are connected to one common output. This configuration enables specific applications in ceiling-mount locations, when applied with suitable lens or mirror optics designs. Two different window options are provided: a large window or standard, rectangular window size. Various element polarities are available upon request. For better EMI protection, the built-in capacitor option is available. For small Fresnel lens applications, a smaller element configuration is provided.



LHi 1128, PYQ 1398 and PYQ 1348

Parameter	Symbol	LHi 1128	PYQ 1398	PYQ 1348	Option	Unit	Remarks
Responsivity, min.	R_{min}	5.40	5.40	5.40		kV/W	$f = 1 \text{ Hz}$
Responsivity, typ.	R	6.5	6.5	6.5		kV/W	$f = 1 \text{ Hz}$
Match, max.	M_{max}	10	10	10		%	
Noise, max.	N_{max}	100	100	100		μV_{pp}	0,4...10Hz/20°C
Noise, typ.	N	30	30	30		μV_{pp}	0,4...10Hz/20°C
spec. Detectivity	D^*	8	8	8		107cm ² ·√Hz/W	1Hz/ 1Hz BW
Field of View, horizontal	FoV	156°					unobstructed
Field of View, vertical		125°					unobstructed
Source Voltage		0,2 ... 1,5	0,2 ... 1,5	0,2 ... 1,5	0,2 ... 1,5	V	47 KO, 20°C
Operating Voltage		2,0...10	2,0...10	2,0...10	2,0...10	V	47 KO, 20°C
EMI performance		**	**	**			
Element size/spacing		1/1/1	1/1/1	1/1/1	0,8/0,8/0,8		
Height	h	4.2	4.2	4.2	4.2	mm	
Optical Element Location	he/h_o	3,2 / 0,35	3,0 / 0,8	3,0 / 0,8	3,0 / 0,8	mm	
Filter Size	X/Y	hexagonal	5,2 / 4,2	Square	Square	mm	