

# PYROELECTRIC DUAL ELEMENT DETECTORS FOR MOTION SENSING

PYROELECTRIC DETECTORS FOR MOTION SENSING ■

## LHi 778, LHi 878, PYD 1388 – Low Cost Pyro



### Applications

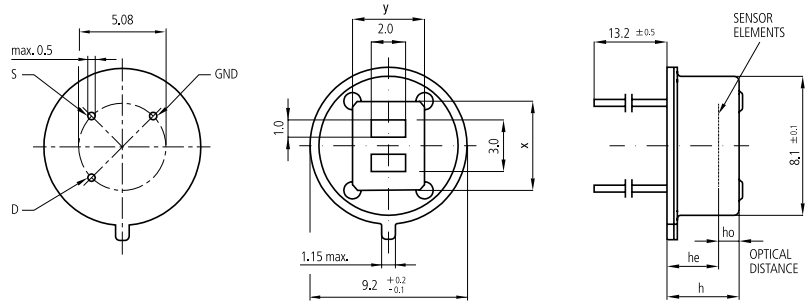
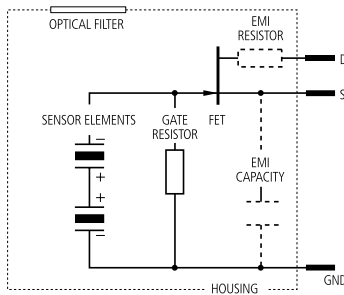
- Auto light switch
- Wall switch
- Auto lamps

### Features and Benefits

- TO-5 metal housing
- Different window sizes
- EMI protection for PYD1388

### Product Description

This low cost Dual Element detector range offers standard TO-5 housings with different window sizes. The LHi 778 has a smaller window for minimal cost. The PYD1388 has an additional EMI protection option.



All dimensions in mm

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Parameter	Symbol	LHI 778	PYD 1388	LHI 878	Unit	Remark
Responsivity, min.	$R_{min}$	3.3	3.3	3.3	kV/W	$f = 1 \text{ Hz}$
Responsivity, typ.	$R_{typ}$	4.2	4.2	4.2	kV/W	$f = 1 \text{ Hz}$
Match, max.	$M_{max}$	10	10	10	%	
Noise, max.	$N_{max}$	50	50	50	$\mu\text{V}_{pp}$	0.4...10 Hz / 20° C
Noise, typ.	$N_{typ}$	20	20	20	$\mu\text{V}_{pp}$	0.4...10 Hz / 20° C
Spec. detectivity	$D^*$	20	20	20	$10^7 \text{ cm}^* \sqrt{\text{Hz/W}}$	1 Hz / 1 Hz BW / 20° C
Field of view, horizontal	FoV	71°	95°	95°		Unobstructed
Field of view, vertical	FoV	71°	87°	87°		Unobstructed
Source voltage		0.2 - 1.55	0.2 - 1.55	0.2 - 1.55	V	47 k $\Omega$ / 20° C / 5 V
Operating voltage		2.0... 12	2.0... 12	2.0... 12	V	47 k $\Omega$ / 20° C
EMI performance		*	**	**		
WLI			**	*		Excelitas tester
Height	h	4.2	4.2	4.2	mm	
Optical element location	he/ho	3.2/0.75	3.2/0.75	3.2/0.75	mm	
Filter size	X/Y	4/3	4.6/3.4	4.6/3.4	mm	

\* Improved, \*\* Excellent