DigiPyro™ digital output pyrodetector

Key Features and Benefits

- First digital output pyrodetector
- Dual element configuration
- Extremely low RF sensitivity
- Low noise
- Wide frequency range
- Fast response time: easy bandpass management
- Automatic out-of-range correction
- Reduced space requirements

Applications

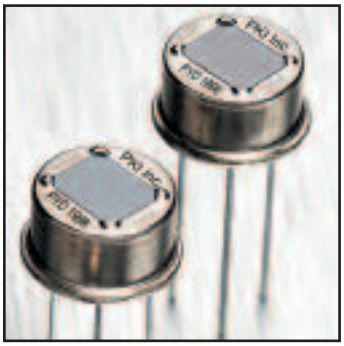
- Motion detection for consumer comfort and safety
- Intrusion alarm passive infrared

Datasheets available upon request.

PYD 1998: Dual Element Detector

The DigPyro™, PYD 1998, is the first within a new family of digital pyroelectric infrared detectors. It combines the time-proven ceramic dual element configuration with a fully integrated A/D converter. An internal clock and control unit enable the PYD 1998 digital output pyrodetector to open a dialog with any outside microprocessor without additional components. The PYD 1998 is offered in a standard three-pin TO-5 housing. The move from analog to digital technology enables the DigiPyro to deliver a number of advantages including space savings from fewer components and significantly improved EMI immunity (PSRR improved by roughly 30 dB). The PYD 1998's fully digital, integrated processing technology continues the high quality standards tradition that customers have come to rely upon with PerkinElmer's analog pyrodetectors.

Please ask for our RoHs compliant products.



DigiPyro™
PYD 1998

Technical Specification

Parameter	Min	Typ	Max	Unit	Remark
Responsivity	3.3	3.8		kV/W	(= 508 digit/W)
Noise			50	µVpp	(= 8 digit)
Operating Voltage	3.5	5	5.5		VDD
Supply Current		30	40		IDD
Field of View		119		˚C	
Operating Temperature	-40		+85	˚C	non-permanent
ADC Resolution		14		bit	
ADC Sensitivity	6.1	6.5	7	µv/digit	
ADC Offset	7000	8192	9200	digit	
Input Low Voltage			20	% Vdd	VIL
Input High Voltage	80			% Vdd	VIH
Pull Up/Down Current	220		350	µA	
Input Capacitance		5		pF	
Data Set-Up Time	2			ns	ts
LPF Cut-Off Frequency		10		Hz	
Internal Clock Frequency	80	90	100	kHz	FCLK