

# DigiPyro



- **The new generation DigiPyro** addresses the growing market requirements for added performance and functionality.
- **Continuous motion sensing,** signal processing and event/motion detection Low-Power DigiPyro. Only upon detection of motion, per programmed settings the Low-Power DigiPyro signals the micro controller to wake up.

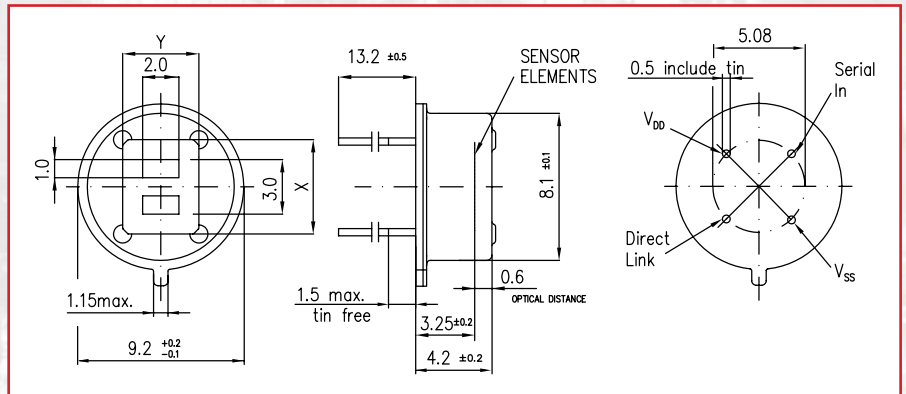
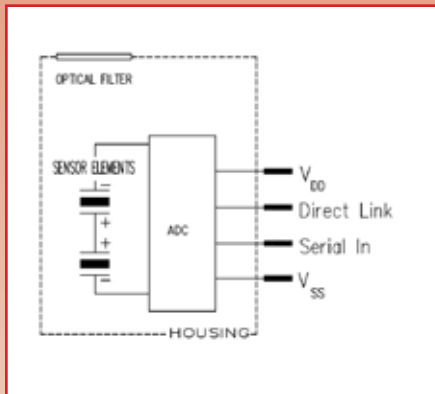
## PYD 1588, PYD 1598 – DigiPyro®

The new Low-Power DigiPyro “Gen2” 1500 Series is the upgrade from our PYD 1600 Series. With significant reduction of supply voltage requirements, the PYD 1500 Series operates at 1,8V – 3,6V. Further, PYD 1588 and PYD1598 offer a selectable band-pass function, and a selection of pulse count options.

The wake-up / sleep mode promotes power savings and extends service life, making it ideal for prolonged battery-



operated motion detection. Detection is handled onboard by the Low-Power DigiPyro. With this enhanced expansion of the DigiPyro Series, we now offer a complete family of products in addition to the established PYD1688, PYD1698, PYQ1648.



### PYD 1588, PYD1598

Main Parameter	Symbol	Min.	Typ.	Max.	Unit	Remarks
Responsivity		3,3	4		kV/W	f = 1 Hz
Match			5	10	%	
Noise			20	78	$\mu V_{pp}$	
<b>Operation Data</b>						
Operating Voltage	$V_{DD}$	1,8	3,0	3,6	V	
Supply Current	$I_{DD}$		3,0	3,5	$\mu A$	$V_{DD} = 1,8V, No Load$
<b>ADC Data</b>						
ADC Resolution			14		Bits	Max. Count = $2^{14} - 1$
PIR ADC Sensitivity			6,5		$\mu V/Count$	
Output Range		511		$2^{14} - 511$	Counts	
LPF Cutoff Frequency	$f_l$		7		Hz	
HPF Cutoff Frequency	f		0,4 / 0,2		Hz	Selectable
Window Size PYD1588			x=4,6 / Y=3,4		mm	
Window Size PYD1598			x=5,2 / Y=4,2		mm	