

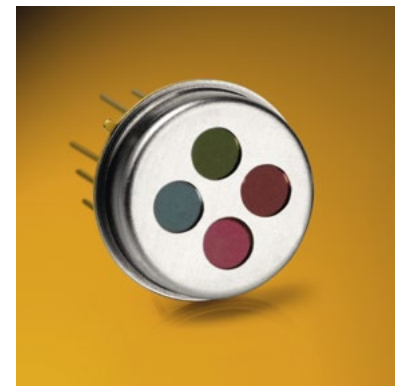
# L1x, L2x Series

LTO Multi Channel  
CM Pyro Detectors

- $\text{LiTaO}_3$
- Multi channel elements
- Current mode
- Integrated OpAmp
- TFC optional
- Trend towards low power

## Basic Characteristics, Specifications

Part Number	Element Size [mm]	Aperture Size [mm]	Package	TFC	Supply Voltage [V]		Supply Current @1M $\Omega$	Speed
					Max	Recommended		
L1200X1810	1.8 x 1.0	2.7 x 1.8	TO-39 4-Pin	n	2.7 – 10	3	150 $\mu$ A	Low
L2200X1810	1.8 x 1.0	2.7 x 1.8	TO-39 4-Pin	y	2.7 – 10	3	150 $\mu$ A	Low
L2400X2020	2.0 x 2.0	$\varnothing$ 3.5, 4-hole	TO-8 8-Pin	y	2.7 – 10	3	300 $\mu$ A	Low
L2410X2020	2.0 x 2.0	$\varnothing$ 3.5, 4-hole	TO-8 8-Pin	y	$\pm 16$	$\pm 5$	300 $\mu$ A	Low



Multi-channel detectors are most commonly found in gas sensing applications as when combined with narrow bandpass IR filters targeted at specific gas lines; incredibly compact gas sensors can be made based on NDIR detection methods.

Our L1x/2x is available with up to 4 channels with integrated filters, allowing for detection of up to 3 gasses simultaneously (3 active channels + 1 reference channel) and any one of

our standard filters or custom filters can be fitted. Current mode devices have a very distinct advantage over voltage mode devices when made into multi-channel detectors. OpAmps when compared to JFETs have a much lower temperature dependence, resulting in a significantly reduced temperature drift between elements when compared to voltage mode operation.

- Available in 2, 3 or 4 channel configurations
- Wide selection of standard filters
- Compact designs
- Greatly improved temperature drift between elements when compared to voltage mode

### Electromechanical Characteristics

Part Number	Responsivity @500K [V/W, 10Hz]		Max Noise Density [RMS, 10Hz, 1 Hz BW]	D* @ 500K [Jones, 10Hz]		FOV [Deg]
	Min	Typ		Min	Typ	
L1200X1810	25,000	35,000	20 $\mu$ V	2.00 E+08	3.00 E+08	20 <sup>a</sup>
L2200X1810	60,000	120,000	50 $\mu$ A	3.00 E+08	5.00 E+08	20 <sup>a</sup>
L2400X2020	90,000	120,000	65 $\mu$ A	6.00 E+08	7.50 E+08	45
L2410X2020	90,000	120,000	65 $\mu$ A	6.00 E+08	7.50 E+08	45

<sup>a</sup> wider available