

## SiTek SPC-PSD

### Features

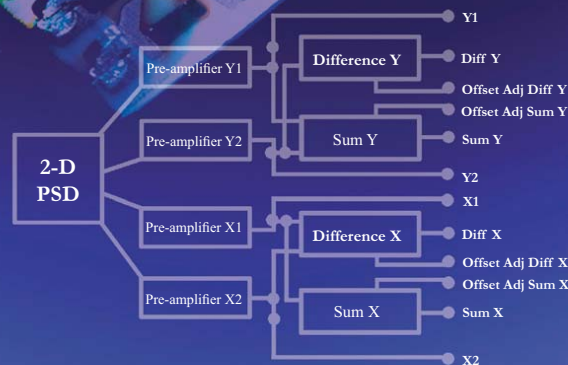
- ▶ Analogue voltage outputs of all sum and differential signals from one- and two-dimensional PSDs.
- ▶ Laser trimmed resistors
- ▶ Inputs for external adjustment of offset voltages
- ▶ Good thermal tracking
- ▶ Small size
- ▶ Allows custom designed specifications

### Applications

- ▶ Analog PSD front-end in displacement measuring systems for OEM as well as evaluation purposes

The SiTek SPC-PSD is a PSD with an attached signal processing circuit. The PSD currents are output as bipolar voltages representing the position and intensity of the centroid of a light spot on the PSD. The intensity signal can be used for external compensation of the position (difference) signal intensity dependence. Inputs are available for external adjustment of offset voltages. In order to obtain maximum precision, high reliability and small size the SPC is built using thick film technology and laser trimmed resistors on a 20,5 x 20,5 mm<sup>2</sup> ceramic substrate. The SPC is delivered with surface mount leads but these can upon request be exchanged for DIL leads.

The SPC comes complete with a 2L10 or 2L4 PSD or any of our one dimensional PSDs. The signal processing circuit can also be used as a stand-alone-unit together with any of our PSDs.



### Specifications

Power supply voltage	±15	V
Transimpedance of first stage	100 000	V/A
Amplification in sum and difference amplifiers	1	
Maximum output voltage	±12	V
Maximum no-adjusted output offset voltage	50	mV
3 dB bandwidth	400	kHz
Slewing rate	13	V/μs
Internal bias on the PSD	15	V