

**PSD2 2D TRANSLATION SENSOR**



**Description**

The PSD2 Translation Sensor is a high performance two-dimensional light beam displacement and power sensor with integrated digital interface. It was specifically developed for accurate high speed; high-resolution two-dimensional metering applications such as laser beam position sensing, vibration metrology, motion analysis, alignment and closed loop servo feedback. At the heart of the PSD2 is a temperature controlled dual-axis analog lateral effect sensor. Depending on the model selected the sensor is either 10 x 10 or 20 x 20 mm. Integrated electronics convert the photocurrents proportional to the light beams centroid position into a digital format used by the internal microprocessor. That microprocessor transforms those signals into a scaled X/Y displacement and total optical power. The PSD2 is equipped with a RS232 serial port interface for data reporting and configuration purposes. Up to 127 PSD2 modules can be networked on a single RS232 interface. A PDA preloaded with a PSD2 interface application is bundled with every system. Higher performance or more elaborate data acquisition applications can be easily handled using the supplied Microsoft programming libraries. The simple to use ASCII syntax includes about 30 basic commands for data acquisition and configuration of the PSD2. For applications requiring higher levels of accuracy the PSD2 has a dedicated memory for error compensation. The PSD2 system includes a universal AC adapter for generating the necessary 9VDC input power. An assortment of optional wavelength filters and neutral density filters compatible with the PSD2 mechanical interface are available from Equipment Solutions.

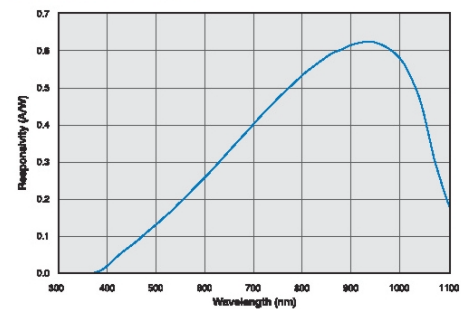
**Equipment Solutions, the Company**

Equipment Solutions, Inc. (ESI) prides itself in giving OEMs and VARs precisely the tools they need to make the best system possible. We believe in long-term relationships. We pledge our undivided attention to our customers. After all, your success ensures ours. Applications support is our highest priority. When you deal with ESI, knowledgeable engineers will help you analyze your problem and reach the best solution, even before you become a customer.

**FEATURES:**

- Small footprint.
- High position resolution.
- High-speed response.
- Low Noise.
- Non-contact.
- Low thermal drift.
- High noise immunity.
- Simple analog electrical output.
- Good linearity
- Exceptional reliability, long life.
- Low cost.

**Typical Spectral Response**



**PSD2 SPECIFICATIONS:**

Active Area (mm)	-1010   -2020
	10 x 10   20 x 20
Non-Linearity:	<±2% (Uncalibrated)
	<±0.5% (Calibrated)
Spectral Response:	400 – 1100nm
Non-Repeatability:	<0.01%
Input Power:	9 - 15 VDC @ 30 mA
Noise:	<1µm
Temp. Coefficient:	±200ppm/°C
Monotonicity:	Guaranteed
Long Term Stability:	50ppm/1000hrs.
Frequency Response:	100Hz
Size: Sensor	2.2in x 2.4in x 1.2in
Weight:	125g (0.28lbs)

**PSD2 Options:**

- Factory Calibration
- Various Neutral Density Filters.
- Various Color Filters
- Mounting Post
- USB Interface