

## Position Detection Sensor/Controller 1D

### Product Features

- ◆ Complete precision spot position detection module - output is spot position
- ◆ Ideal for autofocus control, beam steering control and beam alignment functions
- ◆ Self contained processing for linearization, position computation and normalization
- ◆ Analog or digital output interface: RS-232 or RS-485
- ◆ Wide range power supply compatibility: 12Vdc to 28Vdc
- ◆ Ideal for Bench Top applications: includes power supply protection and filtering

### Description

The PPSD-1D12A Module is an easy to drop in, basic performance, **linear spot position** sensor and controller. It directly outputs spot position. As a stand alone module it does not require external add-on boards and does not require any external signal processing. You get spot position directly in analog or digital format. The standard update rate is 100 Hz with option to select different rates with various smoothing filters.



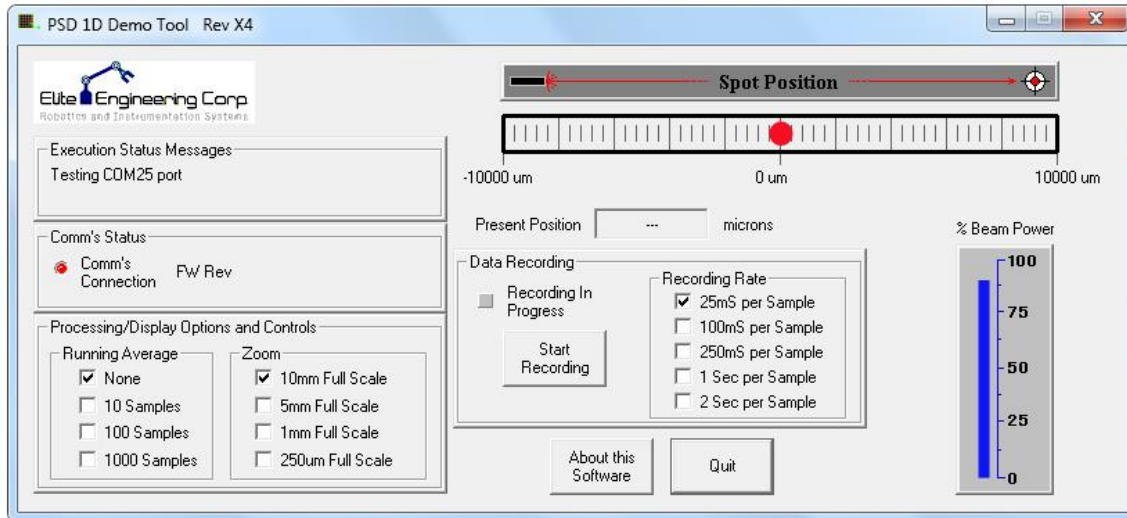
Parameter	Value	Units	Notes
PSD active area	1 x 12	mm	
Spot power, working range	10 to 200	uW	Can be operated outside this range with lower resolution
Spot power, absolute max	1.3	mW	Power levels above this level will saturate the processing electronics. Spot power density should be <math><10\text{mW}/\text{mm}^2</math>
Spot power, minimum detectable	1	uW	Accuracy and resolution performance are degraded at this level
Position resolution	3	uM	At 100uW spot power
Position accuracy	250	uM	At 100uW spot power
Position Sample Rate	100 Hz		No smoothing
Smoothing Filters	0 to 100	Samples	Simple running average
Weight	1 0.4	lbs Kgs	
DC Power Supply	12.0 - 28.0	Vdc	Absolute max supply range, built-in reverse voltage protection
Power consumption	1	Watt	
Serial Interface	RS-232, 115.2KBaud (option for RS485 upon request) (USB adaptor sold separately)		
Power and Communication Connector	Male 10 pin dual row, 2mm pitch friction lock connector (Hirose DF11-10DP-2DS) Mating connector supplied with module		

All values are nominal. Specifications subject to change without notice. Graphs and charts are for reference only.

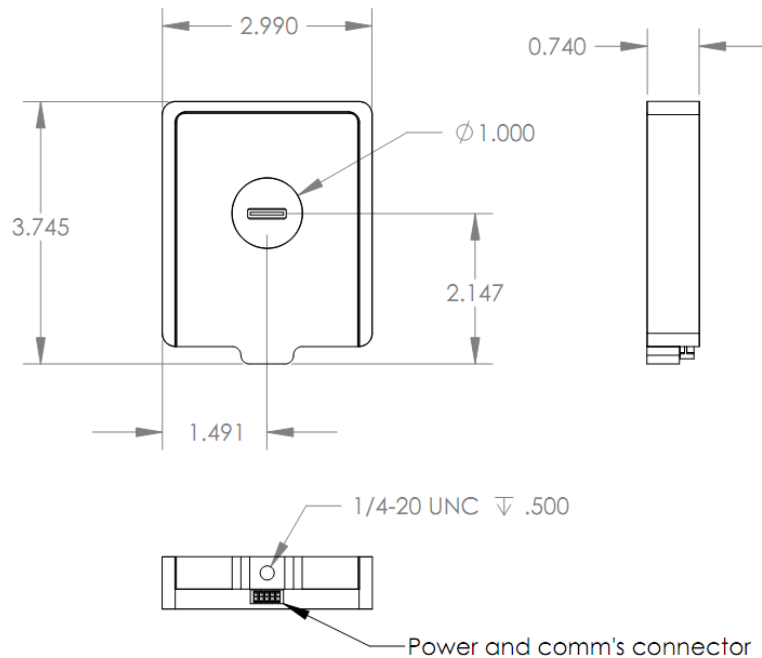


## Additional Features

- ◆ Software app is provided for quick “up and running” position sense and recording app
- ◆ Visual indication of spot position, options for noise averaging
- ◆ Position recording in Excel® compatible files
- ◆ No special driver required for custom interfaces
- ◆ Simple RS-232 messaging for quick data acquisition



## Package Drawing



Dimensions are in inches