

Position Sensing Modules

**For Non-Contact Measurement Of:
Position, Motion, Distance And Vibration**



Features

- Fully Packaged Position Sensing Detectors
- Silicon Linear: 400-1100 nm
- Silicon Duolateral: 400-1100 nm
- Silicon Quadrant: 400-1100 nm
- Germanium Tetra-Lateral: 800-1800 nm
- Removable Filter Holder Adapter
- Standard Mounting Holes
- Plug and Play Compatibility with all ON-TRAK Position Sensing Amplifiers

ON-TRAK[®]
Photonics, Inc.

PSM Series Position Sensing Modules. Plug-And-Play Precision.

On-Trak Position Sensing Modules are fully packaged position sensing detectors that, when used with an On-Trak position sensing amplifier, provide an analog output directly proportional to the position of a light spot on the detector active area.

Yet, what truly sets them apart is their proprietary, plug-and-play design. Never has position sensing been so convenient... or accurate.

Finally, A Plug-And-Play Solution.

No more hassling with breadboards, soldering, cutting and wiring. Instead, all On-Trak Position Sensing Modules (PSMs) incorporate a subminiature 9-pin connector that plugs directly into any On-Trak Position Sensing Amplifier.

Just plug it in and go. It's that simple.

1. OT-301 Versatile Position Sensing Amplifier
2. OT-302 Display Module
3. PSM2-10 Position Sensing Module
4. Laptop Computer with BeamTrak software



Single, Duolateral, Quadrant.

Select from several distinct configurations; each module contains a linear, duolateral, tetralateral, or quadrant position sensing detector. All modules are conveniently packaged to allow simultaneous monitoring of position and light intensity. Position Sensing Modules come in two package sizes: Standard and Compact. The standard measures 2.8" x 2.45" x 1.125". The compact measures 1.25" x 1.25" x 0.975".

Filters And Filter Holder Adapters.

Harsh ambient lighting conditions? No problem. Each module readily accepts a complete range of optional filters to

reduce the effect of noise caused by ambient light. Moreover, a filter holder is included with each module at no extra cost.

Standard Mounting Holes.

All PSMs feature standard mounting holes for easy mounting with your existing lab equipment. Whether your post and stands are 1/4 - 20 or 8/32, you'll be up and running in a matter of minutes.

Robust Aluminum Housings.

On-Trak Position Sensing Modules are encased in rugged aluminum housings to protect your investment.

PSM Specifications

| Model | Active Area (mm) | Detector Type | Wavelength Range | Package Type | Typ. Resolution | Typ. Linearity |
|-----------|------------------|-----------------------------------|------------------|--------------|-----------------|----------------|
| PSM 1-2.5 | 2.5 x 0.6 | Linear Silicon | 400-1100 nm | Compact | 62.5 nm | 0.1% |
| PSM 1-5 | 5.0 x 1.0 | Linear Silicon | 400-1100 nm | Compact | 125 nm | 0.1% |
| PSM 1-10 | 10.0 x 2.0 | Linear Silicon | 400-1100 nm | Standard | 250 nm | 0.1% |
| PSM 1-20 | 20.0 x 3.0 | Linear Silicon | 400-1100 nm | Standard | 500 nm | 0.1% |
| PSM 1-30 | 30.0 x 4.0 | Linear Silicon | 400-1100 nm | Standard | 750 nm | 0.1% |
| PSM 2-2 | 2.0 x 2.0 | Duolateral Silicon | 400-1100 nm | Compact | 50 nm | 0.3% |
| PSM 2-4 | 4.0 x 4.0 | Duolateral Silicon | 400-1100 nm | Compact | 100 nm | 0.3% |
| PSM 2-4Q | 4.0 x 4.0 | Quadrant Silicon | 400-1100 nm | Compact | 100 nm | N/A* |
| PSM 2-5G | 5.0 x 5.0 | Pincushion Tetralateral Germanium | 800-1800 nm | Compact | 5 μ m | — |
| PSM 2-10 | 10.0 x 10.0 | Duolateral Silicon | 400-1100 nm | Standard | 250 nm | 0.3% |
| PSM 2-10Q | 9.0 x 9.0 | Quadrant Silicon | 400-1100 nm | Standard | 100 nm | N/A* |
| PSM 2-10G | 10.0 x 10.0 | Pincushion Tetralateral Germanium | 800-1800 nm | Standard | 5 μ m | — |
| PSM 2-20 | 20.0 x 20.0 | Duolateral Silicon | 400-1100 nm | Standard | 500 nm | 0.3% |
| PSM 2-45 | 45.0 x 45.0 | Duolateral Silicon | 400-1100 nm | Standard | 1.25 μ m | 0.3% |

* For nulling applications

PSM Accessories

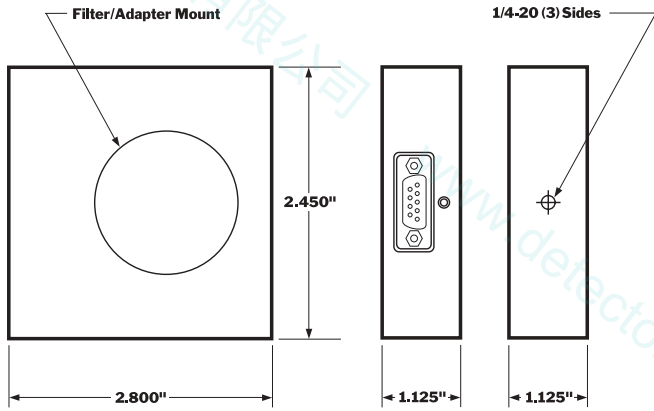


Choose from a wide range of PSM accessories.

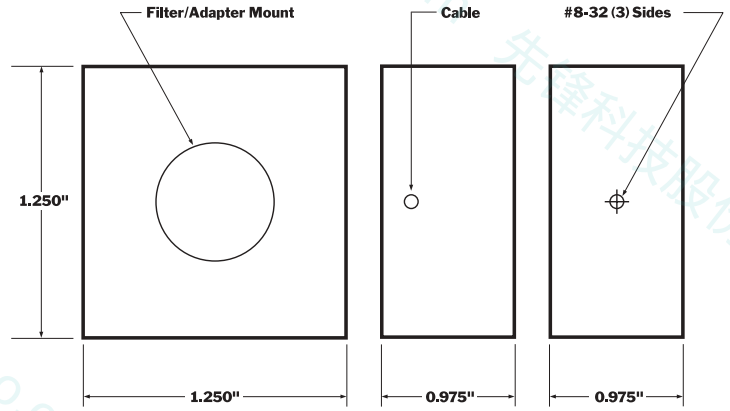
| Model | Description |
|--------------------|---|
| F12.5-632.2 | 12.5 mm optical filter. 632.8 nm, +2.0/-0 nm. FWHM 10 \pm 2 nm. 50% transmittance |
| F25-632.8 | 25 mm optical filter. 632.8 nm, +2.0/-0 nm. FWHM 10 \pm 2 nm. 50% transmittance |
| F12.5-635 | 12.5 mm optical filter. 635 nm, +5.0/-0 nm. FWHM 10 \pm 2 nm. 50% transmittance |
| F25-635 | 25 mm optical filter. 635 nm, +5.0/-0 nm. FWHM 10 \pm 2 nm. 50% transmittance |
| F12.5-670 | 12.5 mm optical filter. 670 nm, +3.0/-0 nm. FWHM 10 \pm 2 nm. 50% transmittance |
| F25-670 | 25 mm optical filter. 670 nm, +3.0/-0 nm. FWHM 10 \pm 2 nm. 50% transmittance |
| F12.5-HA | 12.5 mm Blank Filter Holder Adapter |
| F25-HA | 25 mm Blank Filter Holder Adapter |
| CA-DB9MM-5 | 5 foot molded cable. DB9 connector |
| CA-SC10FR-3 | 3 foot ribbon cable. 10 pin socket connector. Unterminated |
| PS-3 | Post and Stand |

Specifications

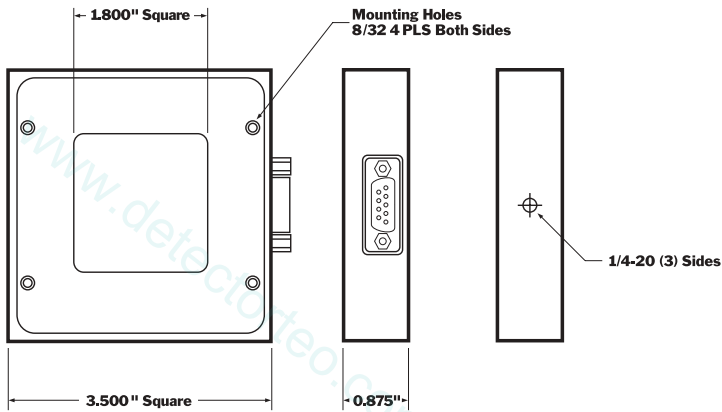
Standard Package Drawing



Compact Package Drawing



PSM2-45



See OT-301 Position Sensing Amplifier brochure for details.



See OT-302D Display Module brochure for details.