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Find the *On-Trak Photonics OT-301* at our website: ***Click HERE***

OT-301 Position Sensing Amplifier. Plug-And-Play Convenience And Precision.



The OT-301 Position Sensing Amplifier is the easiest, most precise way to process the current output from any position sensing detector (PSD) on the market.

Plug-And-Play... Out Of The Box.

truly plug-and-play, the OT-301 eliminates the hassle of having to design and build a custom amplification solution. Simply plug in the detector, switch on the power, and you're ready to go.

The benefit is greater convenience, efficiency and productivity... plus 100% compatibility with your future position sensing needs. The OT-301 pays for itself in no time.

Features

- X, Y Analog Position Output Voltages
- Sum Output
- Wide Dynamic Range: 0.1 µA to 1.5 mA
- DC to 15kHz
- Compatible With All Position Sensing Detectors
- Zero Offset/Nulling
- Calibration Adjust
- Automatic Detector Bias
- Position Independent of Beam Intensity

Any Application... Any Detector.

From laser beam alignment, to beam centering, to mirror stabilization, the OT-301 is ideal for one- and two-dimensional absolute optical positioning or precision centering and nulling requirements. Read the X-Y position output and SUM output from duolateral, tetralateral, single axis, quadrant and bi-cell PSDs.

Four transimpedance Amplifiers.

Four transimpedance amplifier channels and precision signal processing electronics deliver the performance necessary for close-tolerance angle, surface uniformity, flatness, parallelism and straightness measurement.

X, Y Analog Output That's Directly Proportional To Beam Position.

The photocurrent generated from the position sensing detector is processed by the four-channel amplifier system using a position sensing algorithm. The result is X and Y analog outputs that are directly proportional to beam position-independent of changes in beam intensity.

Universal PSD Compatibility
One-Dimensional PSD
Common Anode
Common Cathode
Two-Dimensional PSD
Duolateral
Tetralateral Common Anode
Tetralateral Common Cathode
Pin Cushion Tetralateral-Silicon or Germanium
Quad and Bi-Cell
Common Anode
Common Cathode

Six Gain Settings: 0.1 µA to 1.5 mA.

Six gain settings accommodate input current ranges from 0.1 µA to 1.5 mA with a frequency response to 15 kHz. A convenient ZERO adjust enables you to electronically move the zero to a relative position on the PSD. A CAL adjust allows calibration to absolute position.

Lifetime Warranty.

So reliable is the OT-301, we back it with a comprehensive lifetime warranty... at no additional charge.

Front Panel



Gain:	transimpedance gain 4x103 V/A to 4x106 V/A Input current range 0.1µA to 1.5mA.	**On:**	Power on Indicator.
H:	Input optical power exceeds range selected.	**X,Y Cal:**	Gain potentiometers to allow calibration of voltage output in terms of displacement (±10% of reading).

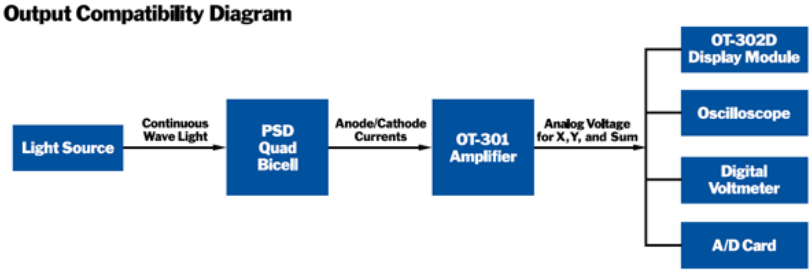
L:	Input optical power lower than range selected. Set range switch at a position where both H/L indicators are off.	**X,Y ZERO:**	Enables the user to electronically move the zero to a relative position on the PSD (±1V each axis).
		PSD:	DB9 Position Sensing Detector Input.

Rear Panel



X Out:	Normalized X axis output (± 10V).	**CAL/ZERO:**	CAL/ZERO "ON" allows use of the X, Y, Zero and X, Y CAL features. CAL/ZERO "OFF" disables these features.
Y Out:	Normalized Y axis output (± 10V).		
SUM:	Total amplified detector output proportional to light intensity (0-6V).	**ON/OFF:**	Power ON/OFF.

Output Compatibility Diagram



Specifications

transimpedance Gain (V/A) 4 x 10^3 to 4 x 10^6

Input Current Range 0.1 µ to 1.5 mA

Output Voltage

Position X, Y ± 10V

Sum 0 - 6V

Zero Offset (Offset Null) ± 1V Each Axis

Calibration Adjust ± 10% of reading

Detector Bias 0V ± 5V (depending on detector)

Linearity ± 0.1%

Frequency Response DC to 15 kHz (range dependent)

Gain-Bandwidth

G1 4 x 10^3 V/A 2.50 x 10^{-4} A/V 15 kHz

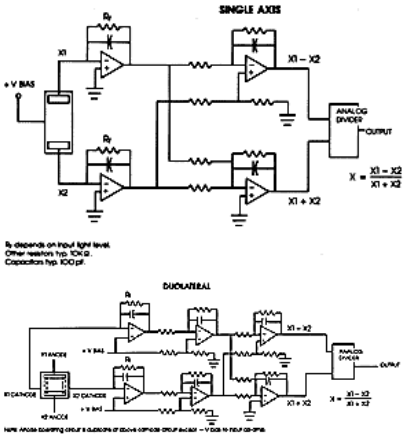
G2 1.6 x 10^4 V/A 6.25 x 10^{-5} A/V 15 kHz

G3 6.4 x 10^4 V/A 1.56 x 10^{-5} A/V 5 kHz

G4 2.56 x 10^5 V/A 3.90 x 10^{-6} A/V 1.25 kHz

G5 1.024 x 10^6 V/A 9.77 x 10^{-7} A/V 310 Hz

G6 4 x 10^6 V/A 2.50 x 10^{-7} A/V 80 Hz



Output Connectors BNC

Input Connector 9 Pin D Sub (DB9)

Power Requirement± 12V DC @ 300mA (AC Adapter)

Dimensions 1.5 x 5.5 x 6.00 inches (H x W x D)

(949) 587-0769

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