

BPI-AMP1

Universal Current Amplifier

Gen 1.2



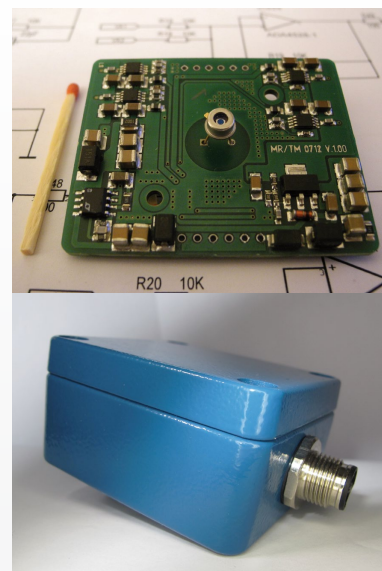
Black Photon
Instruments

Technical Specification

AMP1

Black Photon's new AMP1 amplifies the low current e.g. of a photodiode, converts it to a voltage signal, and outputs a convenient 0 -10 V analog signal.

- OpAmp based ultra-low-noise current amplification
- Fixed amplification factor of 10^4 to 10^6
- Input range: 0-10 μA / 0-100 μA / 0-1000 μA
- Input range with reduced output: 0 - 1000 nA
- Selected electric components from leading manufacturers for superior signal performance and stability among the extended temperature range of $-40\text{ }^\circ\text{C}$ to $+85\text{ }^\circ\text{C}$.
- Line driving capability: 50 m
- Symmetric signal output for superior performance in industrial environments
- Optional internal bias voltage generation of up to 10 V
- External bias voltage feed in
- Integrated transimpedance amplification for conversion of current input to voltage output
- Supply power source: 16 - 30 VDC
- Integrated linear power conditioning
- Outdoor-proof IP-65 encapsulation with excellent EMC shielding
- Choices of connectors:
 - Input: Fischer, Din M12, BNC, Lapp cable clamp, direct soldering of photodiode
 - Output: Fischer, Din M12, Lapp cable clamp
- Contact us for a detailed analysis of linearity, accuracy, drift and temperature stability
- Available in 1, 2 and 4 channel configurations
- Available in high temperature versions (up to $+125\text{ }^\circ\text{C}$)
- One year extended warranty against all kinds of measureable degradation



Specification Version 1.23

About Black Photon Instruments GmbH:

Black Photon Instruments is a Freiburg (Germany) based company which offers new ways for solar radiation measurements. Our technology is developed in close cooperation with the Fraunhofer Institute for Solar Energy Systems (ISE) in Freiburg and other leading research institutes.