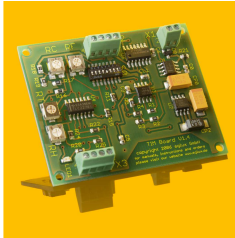


# sglux Photodiode Amplifiers

## selection guide



### Function of the amplifiers



The photodiode amplifiers convert small currents, e.g. generated by a photodiode into different output signals such as voltage (0...5V), current (4...20mA), frequency (kHz range) or on/off signal (0 and 5V). Thus, these amplifiers link the small current generated by a photovoltaic element (photodiode) to usual signal conversion electronics like a voltmeter or a controller.

All amplifiers are based on transimpedance amplifier chips (TIA) that short-circuit the source (photodiode) and convert the short circuit current into the desired signal output information.

### Amplifier overview

Response time of all amplifiers is 0.1s approx. Please contact us for faster amplifiers.

Type	Signal out	Range(s)	Setting facilities	U <sub>supply</sub>	special features
Multiboard	0 – 4V	0 - 400pA 0 – 400nA 0 – 4nA 0 – 40µA 0 – 400µA  0 – 4mV	<ul style="list-style-type: none"> <li>5 ranges configurable with jumpers</li> <li>continuously adjustable amplification 4µA – 400µA</li> <li>offset control</li> </ul>	24V	versatile, multi-configurable amplification of currents from pA range up to µA range. Well suited for experimental setup and small series.
Digiboard	0 – 2.9V	0 – 40 µA	<ul style="list-style-type: none"> <li>continuously adjustable amplification 400nA – 40µA</li> </ul>	5 – 18V	adjustable Schmitt-Trigger with LED, frequency output (alternatively to voltage out)
Ampcon hi	4-20mA	0 – 18nA	<ul style="list-style-type: none"> <li>offset control</li> <li>amplification ±35%</li> </ul>	24V	other ranges can be realized by changing two components (solder iron needed).
Ampcon med		0 – 2.5µA			
Ampcon lo		0 – 250µA			
Voltcon hi	0 – 5V	0 – 40nA	<ul style="list-style-type: none"> <li>amplification ±5%</li> </ul>	5-24V	Please refer to the datasheet for instructions.
Voltcon med		0 – 5µA			
Volcon lo		0 – 500µA			

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### Pictures and dimensions

**Multiboard**



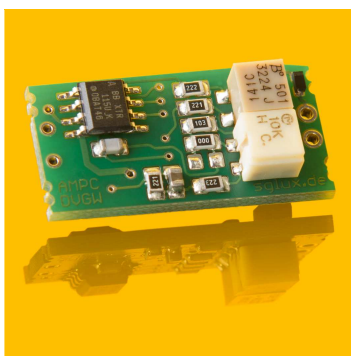
W = 60mm, D = 45mm  
H = 12mm

**Digiboard**



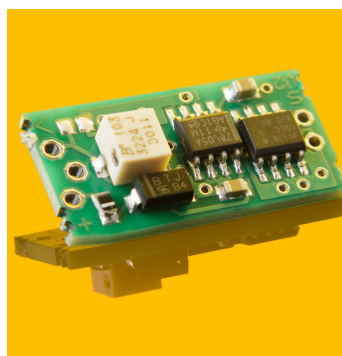
W = 60mm, D = 50mm  
H = 12mm

**Ampcon**



W = 26mm, D = 13mm  
H = 8mm

**Voltcon**



W = 26mm, D = 13mm  
H = 8mm

### Reference Standards with traceable calibration



All of the photodiode amplifier modules are also available as boxed and shielded Reference Standards with traceable calibration. The calibration is performed with equipment directly or indirectly traceable to calibration laboratory reference standards. The reference standards are traceable to the SP Technical Research Institute of Sweden, National Physical Laboratory (NPL), Physikalisch-Technische Bundesanstalt (PTB), UKAS Accredited Laboratory 0029 or to the DANAK Accredited Laboratory 333.