The Voltcon converts a photocurrent into an output voltage between 0 and 5V.

The present module works with a medium gain factor and converts a photocurrent of 5µA to an output of 5V. This means, a current higher than 5µA will cause saturation.

Other modules with low gain (VOLTCON_LO, up to 500µA) and high gain (VOLTCON_HI, up to 40nA) are available. Alternatively, please refer to the below instruction for changing the gain.

### Connection:

<table>
<thead>
<tr>
<th>Input solder points</th>
<th>Power supply solder points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Photodiode anode</td>
<td>3 V+ power supply</td>
</tr>
<tr>
<td>2 Photodiode cathode</td>
<td>4 GND power supply</td>
</tr>
<tr>
<td></td>
<td>5 Signal output</td>
</tr>
</tbody>
</table>

### How to change the gain:

- **RF and CF might have another appearance than in the picture.**
- **To change the gain (measurement range) in a larger scale, please change the feedback resistor RF (the present value is 1 MΩ).**
- **To calculate RF\_{new} for the new resistor, please use this formula:**
  \[
  RF_{\text{new}}(\text{in } \text{M}\Omega) = \frac{5}{I_{\text{max}}(\text{in } \mu\text{A})}
  \]
  where \( I_{\text{max}} \) is the max. measurable photocurrent. It is adjustable with the gain potentiometer.
- **The capacitor CF (the default value is 100nF) is influencing the time constant \( \tau \) of the measurement system. The present time constant is 10ms. It is calculated with the formula:**
  \[
  \tau(\text{in ms}) = CF(\text{in nF}) \times RF(\text{in M}\Omega)
  \]
- **maximum ratings**
  - \( 10k\Omega < RF_{\text{new}} < 3G\Omega \) and \( \tau > 1\text{ms} \)

### Dimensions

- W x L x H = 13 x 26 x 8mm

### Operating and storage temperatures

- Operating temperature: -20…80°C
- Storage temperature: -40…80°C

The amplification factor (gain) is adjustable with a potentiometer (see description).

RoHS-compliant to 2002/95/EG.