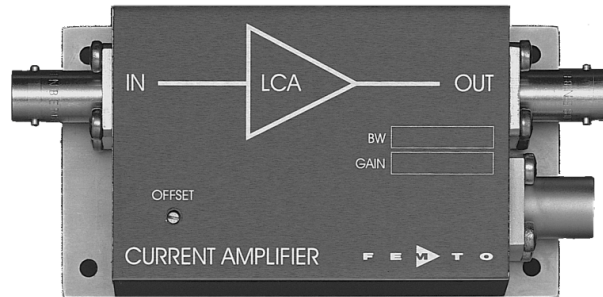




Datasheet

LCA-4K-1G

Ultra-Low-Noise Current Amplifier

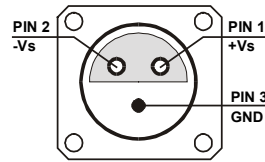


<p>Features</p>	<ul style="list-style-type: none"> • Bandwidth and Frequency Response Independent of Detector-Capacitance (up to 10 nF) • Extremely Low Noise, 6.5 fA/√Hz Equivalent Input Noise Current • Bandwidth DC ... 4 kHz • Transimpedance (Gain) 1 x 10⁹ V/A 	
<p>Applications</p>	<ul style="list-style-type: none"> • Photodiode- and Photomultiplier-Amplifier • Spectroscopy • Charge-Amplifier • Ionisation Detectors • Preamplifier for Lock-Ins, A/D-Converters, etc. 	
<p>Specifications</p>	<p><i>Test Conditions</i></p> <p>Gain</p> <p>Frequency Response</p> <p>Input</p> <p>Output</p> <p>Power Supply</p> <p>Case</p> <p>Temperature Range</p>	<p><i>Vs = ± 15 V, Ta = 25°C</i></p> <p>Transimpedance Accuracy</p> <p>Lower Cut-Off Frequency</p> <p>Upper Cut-Off Frequency</p> <p>Rise- / Fall-Time</p> <p>Gain Flatness</p> <p>Equ. Input Noise Current</p> <p>Equ. Input Noise Voltage</p> <p>Input Bias Current</p> <p>Input Bias Current Drift</p> <p>Offset Current Compensation</p> <p>Max. Input Current</p> <p>Input Offset Voltage</p> <p>DC Input Impedance</p> <p>Output Voltage</p> <p>Output Impedance</p> <p>Max. Output Current</p> <p>Supply Voltage</p> <p>Supply Current</p> <p>Weight</p> <p>Material</p> <p>Storage Temperature</p> <p>Operating Temperature</p>
<p>Absolute Maximum Ratings</p>	<p>Input Voltage</p> <p>Power Supply Voltage</p>	<p>± 5 V</p> <p>± 22 V</p>

Ultra-Low-Noise Current Amplifier

Connectors

Input BNC
 Output BNC
 Power Supply LEMO Series 1S, 3-pin Fixed Socket
 Pin 1: + 15V
 Pin 2: - 15V
 Pin 3: GND



Application Diagrams

Photo Detector Biasing in Photovoltaic Mode:
 Use for Low Speed Applications and Minimum Dark Current.

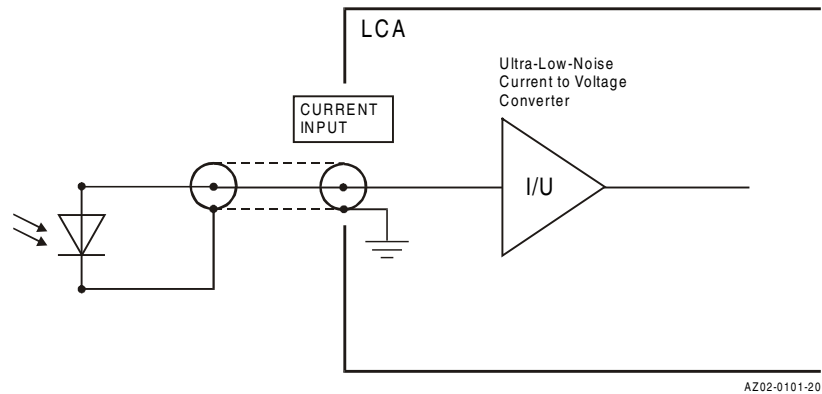
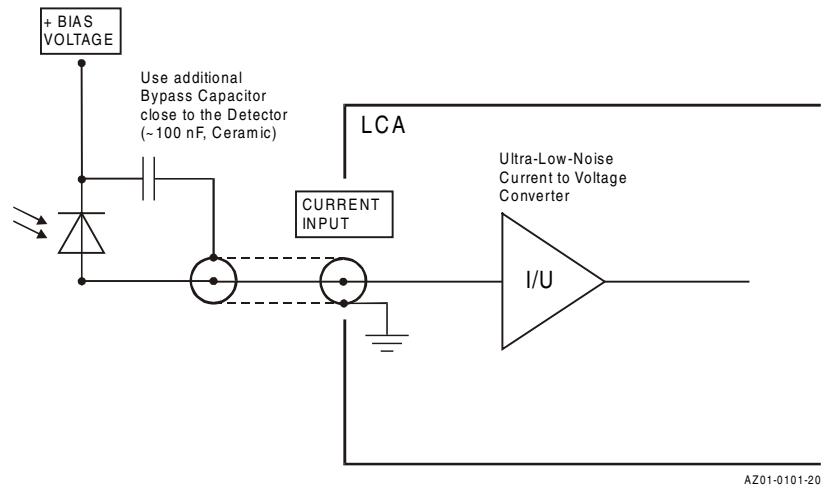
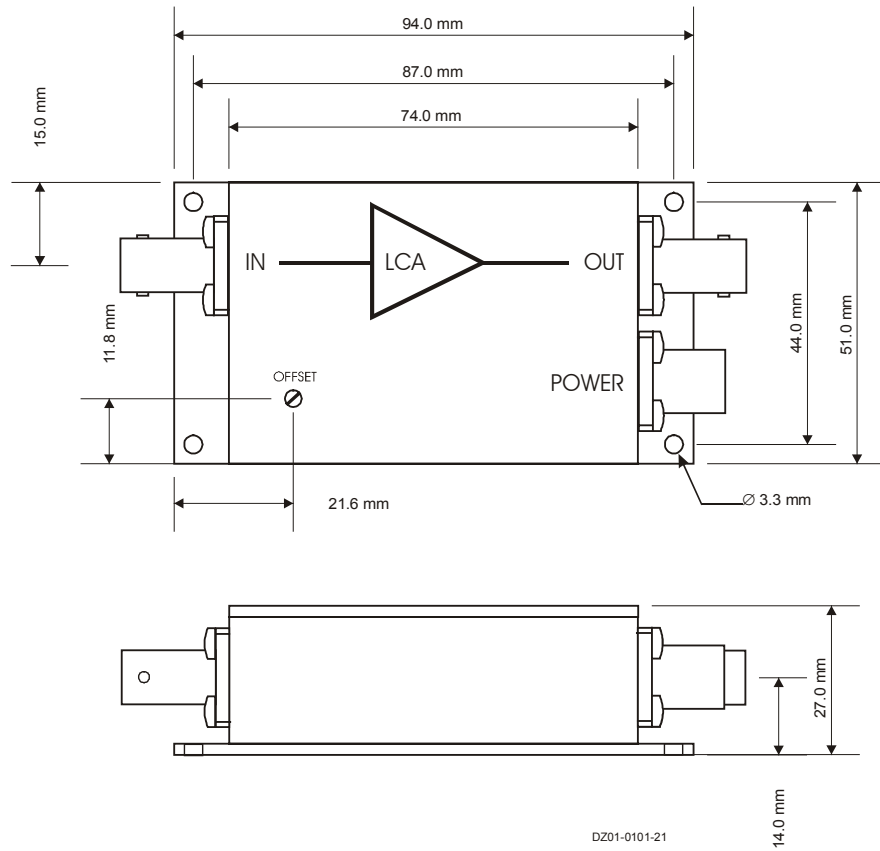


Photo Detector Biasing in Photoconductive Mode:
 Use for Fast Applications and if More Dark Current is Tolerable.
 Bias Voltage Decreases Detector Capacitance.



Ultra-Low-Noise Current Amplifier

Dimensions



FEMTO Messtechnik GmbH
 Paul-Lincke-Ufer 34
 D-10999 Berlin · Germany
 Tel.: +49 (0)30 – 4 46 93 86
 Fax: +49 (0)30 – 4 46 93 88
 e-mail: info@femto.de
 http://www.femto.de

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