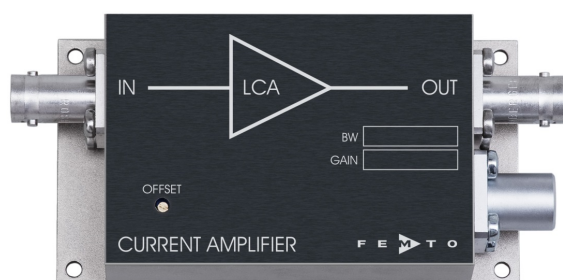


Ultra-Low-Noise Current Amplifier



Features	<ul style="list-style-type: none"> • Bandwidth and Frequency Response Independent of Detector-Capacitance (up to 10 nF) • Extremely Low Noise, 19 fA/√Hz Equivalent Input Noise Current • Bandwidth DC ... 40 kHz • Transimpedance (Gain) 1 x 10⁸ V/A 	
Applications	<ul style="list-style-type: none"> • Photodiode- and Photomultiplier-Amplifier • Spectroscopy • Charge-Amplifier • Ionisation Detectors • Preamplifier for Lock-Ins, A/D-Converters, etc. 	
Specifications	<p>Test Conditions</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>$V_s = \pm 15\text{ V}$, $T_a = 25^\circ\text{C}$</p> <p>Transimpedance Accuracy</p> <p>Lower Cut-Off Frequency Upper Cut-Off Frequency Rise- / Fall-Time Gain Flatness</p> <p>Equ. Input Noise Current Equ. Input Noise Voltage Input Bias Current Input Bias Current Drift Offset Current Compensation Max. Input Current Input Offset Voltage DC Input Impedance</p> <p>Output Voltage Output Impedance Max. Output Current</p> <p>Supply Voltage Supply Current</p> <p>Weight Material</p> <p>Storage Temperature Operating Temperature</p>

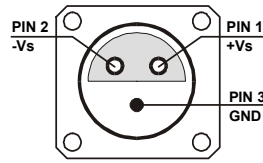
Ultra-Low-Noise Current Amplifier

Absolute Maximum Ratings

Input Voltage $\pm 5\text{ V}$
 Power Supply Voltage $\pm 22\text{ V}$

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.

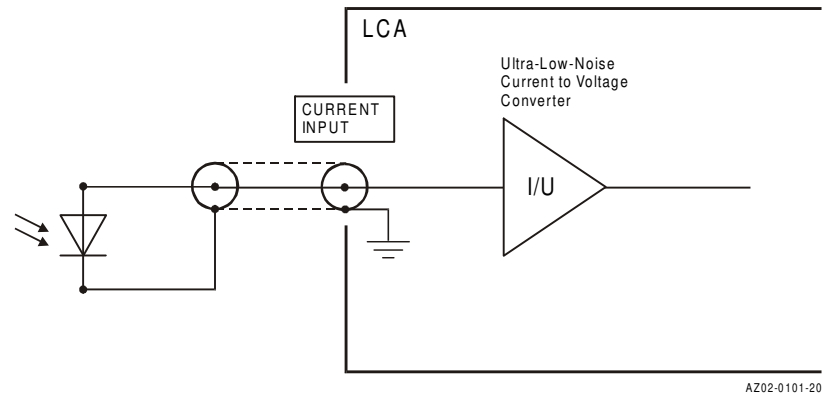
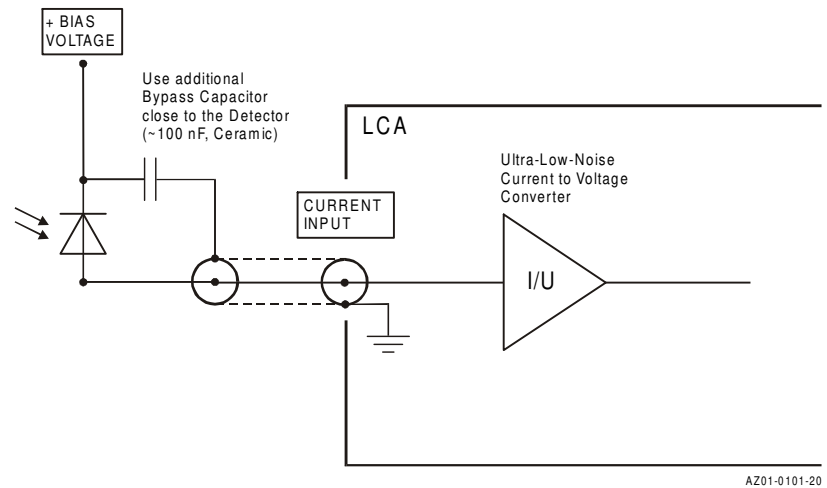
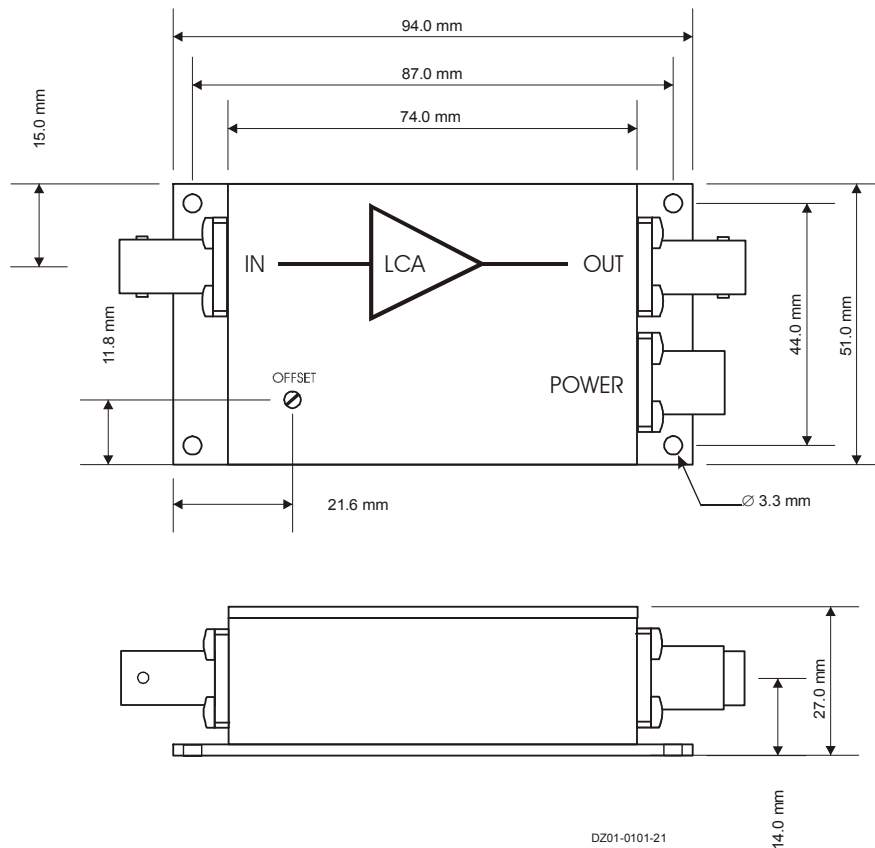


Photo Detector Biasing in Photoconductive Mode:
 Use for Fast Applications and if More Dark Current is Tolerable.
 Bias Voltage Decreases Detector Capacitance.



Ultra-Low-Noise Current Amplifier

Dimensions



FEMTO Messtechnik GmbH
 Klosterstr. 64
 10179 Berlin · Germany
 Phone: +49 30 280 4711-0
 Fax: +49 30 280 4711-11
 Email: info@femto.de
 www.femto.de

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