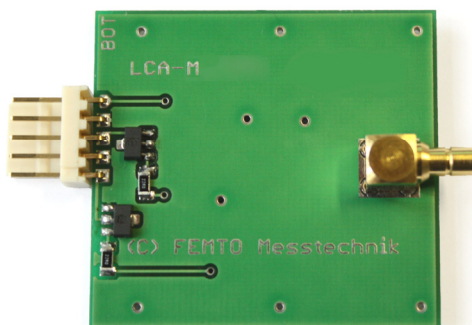


Low Noise Current Amplifier



<p>Features</p>	<ul style="list-style-type: none"> • Bandwidth and Frequency Response Independent of Detector Capacitance (up to 10 nF) • Low Equivalent Input Noise Current of 7 fA/√Hz • Bandwidth DC ... 5 kHz • Transimpedance (Gain) 1 x 10⁹ V/A • Very Compact and Lightweight Design 																																																			
<p>Applications</p>	<ul style="list-style-type: none"> • Sensitive Current Measurements • Spectroscopy • Photodiode or STM-Preamplifier • Amplifier for Ionization and Charge Detectors • Preamplifier for Oscilloscopes, A/D-Converters, Digital Voltmeter etc. 																																																			
<p>Specifications</p>	<p><i>Test Conditions</i> <i>V_s = ± 15 V, T_a = 25°C</i></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 20%;">Gain</td> <td style="width: 50%;">Transimpedance</td> <td style="width: 30%;">1 x 10⁹ V/A (@ ≥ 1 MΩ load)</td> </tr> <tr> <td></td> <td>Accuracy</td> <td>± 2 %</td> </tr> <tr> <td rowspan="3">Frequency Response</td> <td>Lower Cut-Off Frequency</td> <td>DC</td> </tr> <tr> <td>Upper Cut-Off Frequency (- 3 dB)</td> <td>5 kHz</td> </tr> <tr> <td>Rise / Fall Time (10 % - 90%)</td> <td>70 μs</td> </tr> <tr> <td rowspan="7">Input</td> <td>Equ. Input Noise Current</td> <td>7 fA/√Hz (@ 1 kHz)</td> </tr> <tr> <td>Integrated Input Noise</td> <td>4 pA peak-peak</td> </tr> <tr> <td>Input Bias Current</td> <td>2 pA typ.</td> </tr> <tr> <td>Input Bias Current Drift</td> <td>factor 1.8 / 10 °C</td> </tr> <tr> <td>Max. Input Current</td> <td>± 10 nA (for linear amplification)</td> </tr> <tr> <td>Input Offset Voltage</td> <td>< 1 mV</td> </tr> <tr> <td>DC Input Impedance</td> <td>50 Ω (virtual) // 5 pF</td> </tr> <tr> <td rowspan="3">Output</td> <td>Output Voltage</td> <td>± 10 V (@ ≥ 1 MΩ load)</td> </tr> <tr> <td>Output Impedance</td> <td>50 Ω (designed for ≥ 1 MΩ load)</td> </tr> <tr> <td>Max. Output Current</td> <td>± 10 mA (for linear amplification)</td> </tr> <tr> <td rowspan="2">Power Supply</td> <td>Supply Voltage</td> <td>± 15 V</td> </tr> <tr> <td>Supply Current</td> <td>± 30 mA typ. (depends on operating conditions, recommended power supply capability minimum ± 100 mA)</td> </tr> <tr> <td rowspan="2">Physical Properties</td> <td>Weight</td> <td>20 g (0.044 lbs)</td> </tr> <tr> <td>Dimensions</td> <td>ca. 46 mm x 43 mm x 13 mm</td> </tr> <tr> <td rowspan="2">Temperature Range</td> <td>Storage Temperature</td> <td>- 40 ... + 100 °C</td> </tr> <tr> <td>Operating Temperature</td> <td>0 ... + 60 °C</td> </tr> </table>		Gain	Transimpedance	1 x 10 ⁹ V/A (@ ≥ 1 MΩ load)		Accuracy	± 2 %	Frequency Response	Lower Cut-Off Frequency	DC	Upper Cut-Off Frequency (- 3 dB)	5 kHz	Rise / Fall Time (10 % - 90%)	70 μs	Input	Equ. Input Noise Current	7 fA/√Hz (@ 1 kHz)	Integrated Input Noise	4 pA peak-peak	Input Bias Current	2 pA typ.	Input Bias Current Drift	factor 1.8 / 10 °C	Max. Input Current	± 10 nA (for linear amplification)	Input Offset Voltage	< 1 mV	DC Input Impedance	50 Ω (virtual) // 5 pF	Output	Output Voltage	± 10 V (@ ≥ 1 MΩ load)	Output Impedance	50 Ω (designed for ≥ 1 MΩ load)	Max. Output Current	± 10 mA (for linear amplification)	Power Supply	Supply Voltage	± 15 V	Supply Current	± 30 mA typ. (depends on operating conditions, recommended power supply capability minimum ± 100 mA)	Physical Properties	Weight	20 g (0.044 lbs)	Dimensions	ca. 46 mm x 43 mm x 13 mm	Temperature Range	Storage Temperature	- 40 ... + 100 °C	Operating Temperature	0 ... + 60 °C
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Absolute Maximum Ratings	Input Voltage	$\pm 5\text{ V}$
	Power Supply Voltage	$\pm 20\text{ V}$
Connectors	Input	SMB (SMA available on request)
	Output and Power Supply	2.54 mm board connector (solder pads or cable pigtail available on request)
	Pin 1:	Output
	Pin 2:	GND
	Pin 3:	+ 15V
	Pin 4:	GND
	Pin 5:	- 15V

Dimensions	<p style="text-align: center;">All dimensions in mm unless otherwise noted</p>
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