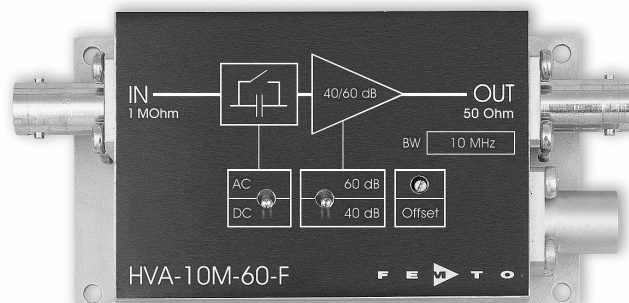
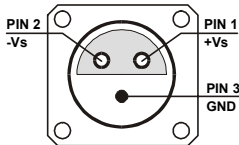


# 10 MHz High Input Impedance Voltage Amplifier



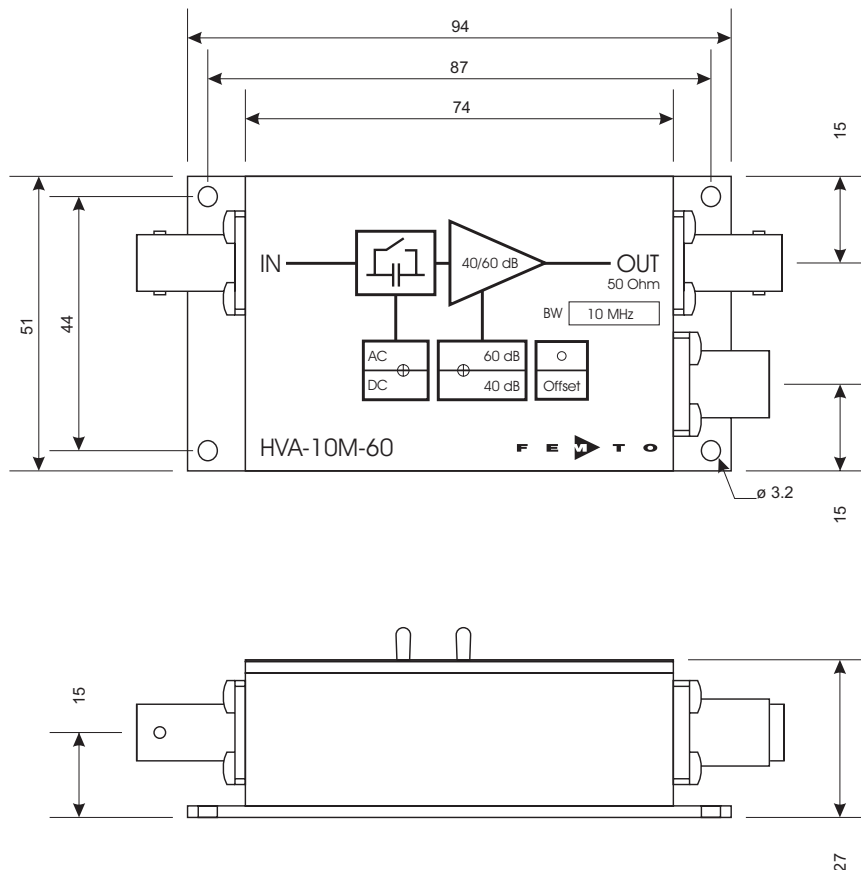
<p>Features</p>	<ul style="list-style-type: none"> <li>• <b>Switchable Gain 40/60 dB (x100 / x1,000)</b></li> <li>• <b>Bandwidth DC ... 10 MHz</b></li> <li>• <b>High Input Impedance 1 MΩ</b></li> <li>• <b>Switchable AC/DC Coupling</b></li> </ul>																																																													
<p>Applications</p>	<ul style="list-style-type: none"> <li>• <b>Oscilloscope and Transient Recorder Pre-amplifier</b></li> <li>• <b>Photomultiplier and Microchannel Plate Amplifier</b></li> <li>• <b>Signal Booster for Optical Receivers and Current Amplifiers</b></li> <li>• <b>Time-Resolved Pulse and Transient Measurements</b></li> </ul>																																																													
<p>Specifications</p>	<p><i>Test Conditions</i> <span style="float: right;"><i>Vs = ± 15 V, Ta = 25°C</i></span></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Gain</td> <td style="width: 40%;">Gain</td> <td style="width: 30%;">40/60 dB switchable</td> </tr> <tr> <td></td> <td>Gain Accuracy</td> <td>± 0.2 dB</td> </tr> <tr> <td>Frequency Response</td> <td>Lower Cut-Off Frequency (-3 dB)</td> <td>DC/1 Hz switchable</td> </tr> <tr> <td></td> <td>Upper Cut-Off Frequency (-3 dB)</td> <td>10 MHz</td> </tr> <tr> <td></td> <td>Rise/Fall Time (10% - 90%)</td> <td>35 ns</td> </tr> <tr> <td>Input</td> <td>Input Impedance</td> <td>1 MΩ    15 pF</td> </tr> <tr> <td></td> <td>Input Voltage Noise</td> <td>4.7 nV/√Hz (@ 2 MHz)</td> </tr> <tr> <td></td> <td>Integrated Input Noise</td> <td>100 μV peak-peak</td> </tr> <tr> <td></td> <td>Input Bias Current</td> <td>2 pA</td> </tr> <tr> <td></td> <td>Input Offset Voltage</td> <td>250 μV max.</td> </tr> <tr> <td></td> <td>Input Voltage Drift</td> <td>2 μV/°C</td> </tr> <tr> <td>Output</td> <td>Output Impedance</td> <td>50 Ω (terminate with 50 Ω load for best performance)</td> </tr> <tr> <td></td> <td>Output Voltage</td> <td>± 3.5 V (@ 50 Ω load, for linear amplification)</td> </tr> <tr> <td></td> <td>Max. Output Current</td> <td>100 mA</td> </tr> <tr> <td></td> <td>Output Offset Trimmer Range</td> <td>± 500 mV</td> </tr> <tr> <td></td> <td>Slew Rate</td> <td>500 V/μs (@ 50 Ω load)</td> </tr> <tr> <td>Power Supply</td> <td>Supply Voltage</td> <td>± 15 V</td> </tr> <tr> <td></td> <td>Supply Current</td> <td>± 70 mA typ. (depends on operating conditions, recommended power supply capability min. ± 150 mA)</td> </tr> <tr> <td>Case</td> <td>Weight</td> <td>200 g (0.5 lbs)</td> </tr> <tr> <td></td> <td>Material</td> <td>AlMg4.5Mn, nickel-plated</td> </tr> </table>		Gain	Gain	40/60 dB switchable		Gain Accuracy	± 0.2 dB	Frequency Response	Lower Cut-Off Frequency (-3 dB)	DC/1 Hz switchable		Upper Cut-Off Frequency (-3 dB)	10 MHz		Rise/Fall Time (10% - 90%)	35 ns	Input	Input Impedance	1 MΩ    15 pF		Input Voltage Noise	4.7 nV/√Hz (@ 2 MHz)		Integrated Input Noise	100 μV peak-peak		Input Bias Current	2 pA		Input Offset Voltage	250 μV max.		Input Voltage Drift	2 μV/°C	Output	Output Impedance	50 Ω (terminate with 50 Ω load for best performance)		Output Voltage	± 3.5 V (@ 50 Ω load, for linear amplification)		Max. Output Current	100 mA		Output Offset Trimmer Range	± 500 mV		Slew Rate	500 V/μs (@ 50 Ω load)	Power Supply	Supply Voltage	± 15 V		Supply Current	± 70 mA typ. (depends on operating conditions, recommended power supply capability min. ± 150 mA)	Case	Weight	200 g (0.5 lbs)		Material	AlMg4.5Mn, nickel-plated
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## 10 MHz High Input Impedance Voltage Amplifier

Specifications (continued)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">Temperature Range</td> <td style="padding: 2px;">Storage Temperature</td> <td style="padding: 2px;">- 40 ... + 100 °C</td> </tr> <tr> <td></td> <td style="padding: 2px;">Operating Temperature</td> <td style="padding: 2px;">0 ... + 60 °C</td> </tr> </table>	Temperature Range	Storage Temperature	- 40 ... + 100 °C		Operating Temperature	0 ... + 60 °C
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Connectors	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">Input</td> <td style="padding: 2px;">BNC</td> </tr> <tr> <td style="padding: 2px;">Output</td> <td style="padding: 2px;">BNC</td> </tr> <tr> <td style="padding: 2px;">Power Supply</td> <td style="padding: 2px;">LEMO series 1S, 3-pin fixed socket Pin 1: + 15V Pin 2: - 15V Pin 3: GND</td> </tr> </table> <div style="text-align: center; margin-top: 10px;">  </div>	Input	BNC	Output	BNC	Power Supply	LEMO series 1S, 3-pin fixed socket Pin 1: + 15V Pin 2: - 15V Pin 3: GND
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# 10 MHz High Input Impedance Voltage Amplifier

Dimensions



all measures in mm unless otherwise noted

DZ\_HVA-10M-60\_R2

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