# 200 MHz High Input Impedance Voltage Amplifier


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| Features | • **Switchable Gain 20/40 dB (x10 / x100)**<br>• **Bandwidth DC ... 200 MHz**<br>• **High Input Impedance 1 MΩ**<br>• **Switchable AC/DC Coupling** | | |
| Applications | • **Oscilloscope and Transient Recorder Preamplifier**<br>• **Photomultiplier and Microchannel Plate Amplifier**<br>• **Signal Booster for Optical Receivers and Current Amplifiers**<br>• **Time-Resolved Pulse and Transient Measurements** | | |
| Specifications | | Test Conditions | Vs = ± 15 V, Ta = 25°C |
| | Gain | Gain | 20/40 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) | 200 MHz |
| | | Rise/Fall Time (10% - 90%) | 1.8 ns |
| | Input | Input Impedance | 1 MΩ ll 15 pF |
| | | Input Voltage Noise | 4.5 nV/√Hz (@ 50 MHz, 40 dB gain) |
| | | | 5.5 nV/√Hz (@ 50 MHz, 20 dB gain) |
| | | Intregrated Input Noise | 450 µV peak-peak (@ 40 dB gain) |
| | | | 600 µV peak-peak (@ 20 dB gain) |
| | | Input Bias Current | 10 pA |
| | | Input Offset Voltage | 500 µV typ. |
| | | Input Voltage Drift | 5 µV/°C |
| | Output | Output Impedance | 50 Ω (terminate with 50 Ω load for best performance) |
| | | Output Voltage | ± 1 V (@ 50 Ω load, for linear amplification) |
| | | Max. Output Current | 60 mA |
| | | Output Offset Trimmer Range | ± 100 mV |
| | | Slew Rate | 600 V/µs (@ 20 dB, 50 Ω load) |
| | | | 1,100 V/µs (@ 40 dB, 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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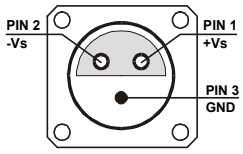
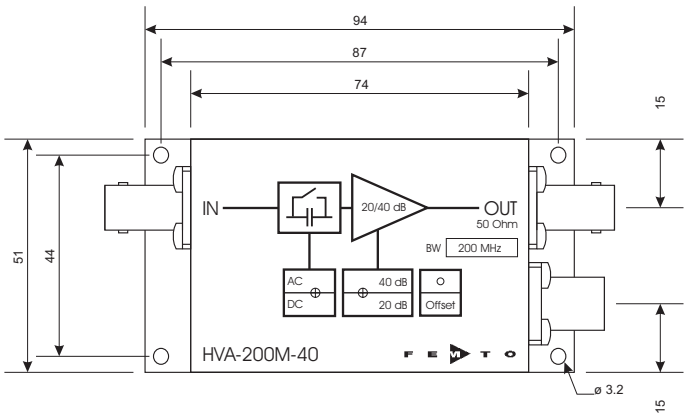
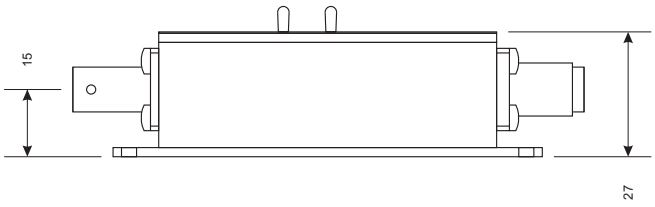
| Specifications (continued) | | |
| Temperature Range | Storage Temperature<br>Operating Temperature | - 40 ... + 100 °C<br>0 ... + 60 °C |
| Absolute Maximum Ratings | Power Supply Voltage<br>Input Voltage<br>Transient Input Voltage | ± 20 V<br>± 5 V<br>200 V (out of a 200 pF source) |
| Connectors | Input<br>Output<br>Power Supply | BNC<br>BNC<br>LEMO series 1S, 3-pin fixed socket<br>Pin 1: + 15V<br>Pin 2: - 15V<br>Pin 3: GND |




Dimensions




all measures in mm unless otherwise noted

DZ_HVA-200M-40_R2

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