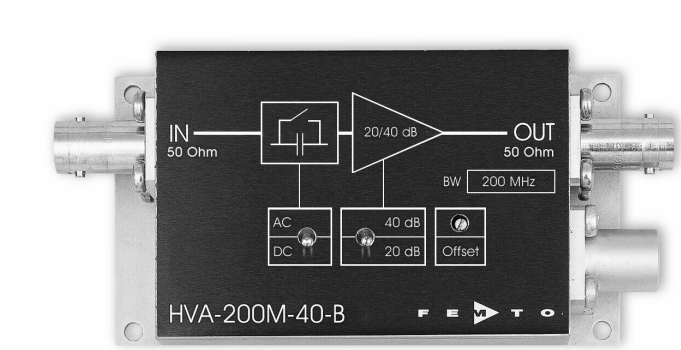
200 MHz Low-Noise Voltage Amplifier



Features	• **Switchable Gain 20/40 dB (x10 / x100)** • **Bandwidth DC ... 200 MHz** • **Low Input Noise of 1.2 nV/√Hz** • **Switchable AC/DC Coupling**
Applications	• **Oscilloscope and Transient Recorder Preamplifier** • **Photomultiplier and Microchannel Plate Amplifier** • **Signal Booster for Optical Receivers and Current Amplifiers** • **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 kHz switchable
	Upper Cut-Off Frequency (-3 dB)	200 MHz
	Rise/Fall Time (10% - 90%)	1.8 ns
Input	Input Impedance	50 Ω ll 12 pF
	Input Voltage Noise	1.2 nV/√Hz (@ 50 MHz, 40 dB gain)
		3.5 nV/√Hz (@ 50 MHz, 20 dB gain)
	Intregrated Input Noise	150 µV peak-peak (@ 40 dB gain)
		400 µV peak-peak (@ 20 dB gain)
	Input Bias Current	20 µA
	Input Offset Voltage	500 µV typ.
	Input Voltage Drift	1 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	500 V/µs (@ 20 dB, 50 Ω load)
		1,000 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)

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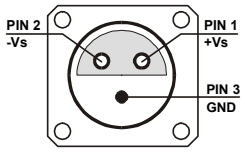
Specifications (continued)		
Case	Weight	200 g (0.5 lbs)
	Material	AlMg4.5Mn, nickel-plated
Temperature Range	Storage Temperature	- 40 ... + 100 °C
	Operating Temperature	0 ... + 60 °C
Absolute Maximum Ratings	Power Supply Voltage	± 20 V
	Input Voltage	± 5 V
Connectors	Input	BNC
	Output	BNC
	Power Supply	LEMO series 1S, 3-pin fixed socket Pin 1: + 15V Pin 2: - 15V Pin 3: GND



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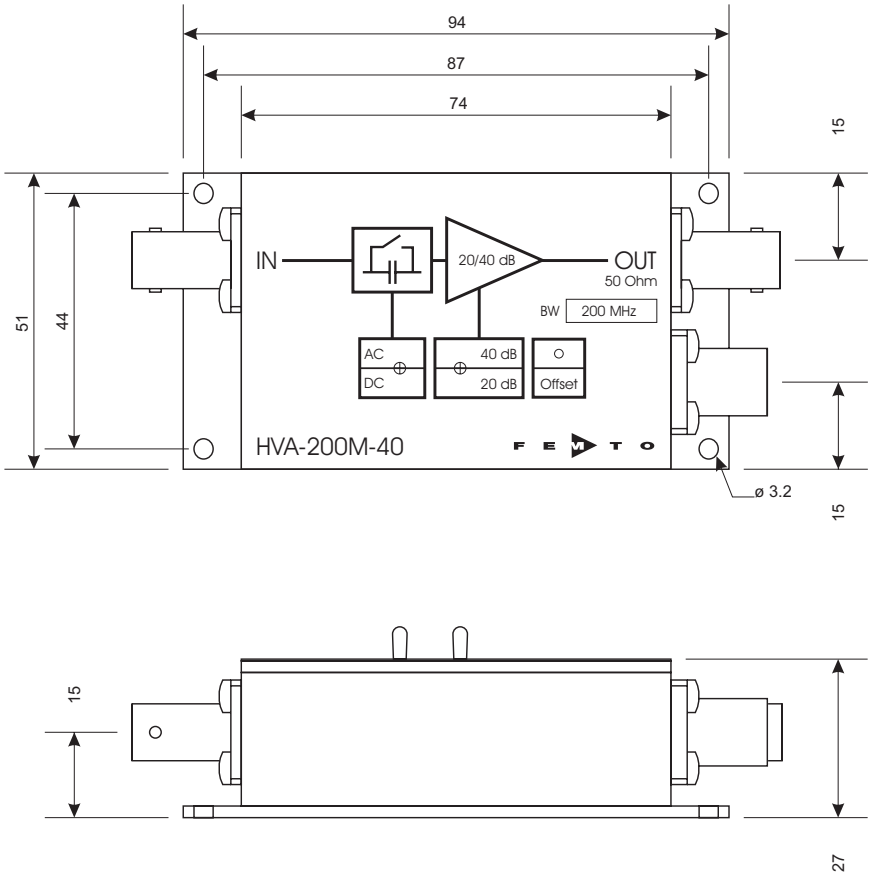
Dimensions



all measures in mm unless otherwise noted

DZ_HVA-200M-40_R2

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