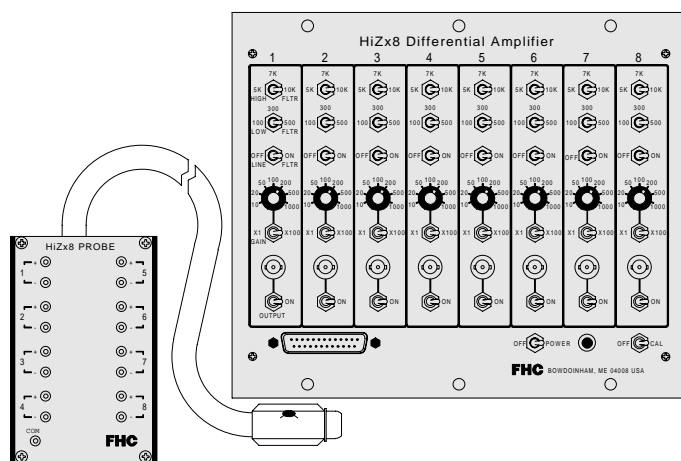


HiZx8 8-Channel Differential Amplifier

SPECIFICATIONS

- **LOW NOISE**
- **WIDE GAIN RANGE (10-100,000)**
- **SHARP (-12dB/OCTAVE) HIGH AND LOW CUTOFF FILTERS**
- **MAINS LINE FILTER (50 OR 60Hz) PROVIDED**
- **BUILT-IN CAL SIGNAL (100 MICROVOLTS)**
- **COMPACT SIZE WITH BUILT-IN POWER SUPPLY**
- **EXTRA 24 DB/OCTAVE FILTER ABOVE 10KHZ (OTHER VALUES CAN BE SPECIFIED)**
- **PROBE AVAILABLE SEPARATELY WITH OR WITHOUT ADAPTER/POWER SUPPLY MODULE**



The 40-41-2 **HiZx8 8-Channel Differential Amplifier** is an inexpensive multi-channel amplifier for experiments using multiple microelectrodes which require input buffering near the preparation to maximize signal to noise.

The instrument features an 8-channel differential probe which can be mounted near the preparation. Since many experiments involve transducers which generate high frequency interference, the system includes an extra sharp, 24 dB/Octave, 10KHz filter in addition to the adjustable high cutoff filters.

Compact, with built-in power supply, two HiZx8 Amplifiers (16 channels) can be mounted in only 7 inches (17.7cm) of vertical space in a standard instrument rack.

AMPLIFIERS (8):

Input: Differential

Input Impedance: 10^{12} Ohms

Input Bias Current: <4pA

Common Mode Rejection: 95dB at 60Hz

Gain: x10 to x100,000 in 13 calibrated steps (includes x10 gain from Probe preamplifier)

Frequency Response: 100Hz - 10KHz (-3dB)

Filter Cutoff Slopes: -12dB/Octave plus an additional -24dB/Octave above 10KHz (other value can be specified)

High Cutoff Ranges (Hz)(-3dB): 5K, 7K, 10K

Low Cutoff Ranges (Hz) (-3dB): 100, 300, 500

Input Dynamic Range: $\pm 1V$

Output Dynamic Range: $\pm 10V$

Cal Signal: 1000Hz square wave provided equivalent to 100 microvolts at Probe input

Line Filter: 50 or 60Hz (specify), -40dB attenuation

Power Requirements: 115V/230V selectable, 50-60Hz, 1A

Dimensions: Module: 7" h x 8 1/4" w x 9" d (18x21x23cm); 6.5 lbs. (3kg)

Probe: 4 1/4" w x 2 3/4" h x 2" d (7x11x 5cm); 2 lbs. (.9 kg) with 6' (2m) cable (other lengths optional)

HiZx8 PROBE (only):

Input: Differential

Input Impedance: 10^{12} Ohms

Input Bias Current: <4pA

Common Mode Rejection: 95dB at 60Hz

Gain: x10

Frequency Response: DC-20KHz

Input Dynamic Range: $\pm 1V$

Output Dynamic Range: $\pm 10V$

Power Requirements: +15/-15VDC, 100mA

Dimensions: Probe: 4 1/4" w x 2 3/4" h x 2" d (7x11x 5cm); 2 lbs. (.9 kg) with 6' (2m) cable (other lengths optional)

HiZx8 PROBE (only):

Dimensions: Probe: 4 1/4" w x 2 3/4" h x 2" d (7x11x 5cm); 2 lbs. (.9 kg) with 6' (2m) cable (other lengths optional)

ORDERING INFORMATION

- 40-41-2 HiZx8 8-Channel Differential Amplifier with probe and module with built-in power supply
- 40-41-3 HiZx8 Differential Probe (only) with 2.5m cable (other lengths optional)
- 40-41-6 Miniature HiZx8 Probe (only) w/2.5m cable

Because many computerized data analysis systems do not include provision for a high impedance head stage, we've made our X10 Gain 8-channel HiZ8 Probe available as a separate catalog item. We've also developed an Adapter/Power Supply Module in two convenient mounting configurations. Both include sufficient, regulated + and - 15 volts to power other high gain amplifiers like the Neuralynx-8.

Please see page 47.