

## Model FMB3002 Filter/Amplifier Chassis

- 1 or 2 Channels
- Choice of AC or DC Power
- Standard Battery Power Operation
- Single-Ended or Differential Input Configuration
- BNC/Terminal Block Connections
- Accepts Krohn-Hite 3FMB Modules
- Mix and Match Modules
- Turn-Key Solution



### DESCRIPTION

The New Krohn-Hite Model FMB3002AC and FMB3002DC chassis are two channel, compact filter chassis that provide housing for the Krohn-Hite Fixed Frequency Filter/Amplifier 3F Modules. Each chassis has both input BNC (single-ended) and terminal block (differential) connectors, and output connectors are BNC. Internal sockets are provided for each channel making installation and removal of the 3F modules easy when updating or changing to different type filter/amplifier module requirements. Input and output gain selections can also be made by simply adding an internal resistor. Each chassis provides for battery power. Two high energy 9V batteries are recommended.

### FMB3002AC, AC POWER CHASSIS

The FMB3002AC, ac powered chassis, provides its own  $\pm 15\text{V}$  power supply for powering the 3F filter/amplifier modules. Each channel has associated BNC and terminal block input and BNC output connectors for signal connections. Battery power is standard and requires two 9V batteries to operate in this mode. An LED indicator is provided for each channel to indicate that the channel is active.

### FMB3002DC, DC POWERED CHASSIS

The FMB3002DC, dc powered chassis, has the standard input and output connectors as the FMB3002AC and must be powered by an external bipolar power source. A rear panel, 3-terminal block connector is provided for all power connections. Power source must be  $\pm 10\text{Vdc}$  to  $\pm 15\text{Vdc}$ . Battery power is also standard and requires two 9V batteries to operate in this mode. An LED indicator is provided for each channel to indicate that the channel is active.

### BATTERY POWERED

When the FMB3002AC or FMB3002DC is battery operated, two 9V, high energy, lithium batteries are required. High energy batteries are recommended for extended operation. Battery life using the high energy batteries is up to 8 hours when two 3F modules are installed. Standard alkaline battery life is typically 2 hours.

### APPLICATIONS

Applications for the FMB3002AC and FMB3002DC include: anti-alias filtering, data acquisition systems, aerospace (sonar and navigation), sound and vibration testing, medical electronics, communication systems, real and compressed time data analysis, noise elimination and signal reconstruction and more.

## SPECIFICATIONS

**Number of Channels:** 1 or 2.

**Channel LED Indicators:** Indicate when channel is active.

**Current:** Single channel, 35mA, 2 channel, 70mA.

**Operating Temperature:** 0°C to 45°C, non-condensing.

**Dimensions:** 8.0" wide, 2.25" high, 6.25" deep.

**Weights:** 3 lbs.

## FMB3002AC

**Power Requirements:** 105-130Vac/210-260Vac, 50/60Hz, 5 watts max.

## FMB3002DC

**Power Supply Voltage ( $\pm$ Vs):** Operating range:  $\pm$ 10Vdc to  $\pm$ 15Vdc; Maximum safe voltage:  $\pm$ 18Vdc.

**Power LED:** Indicates by flashing when battery voltage is low.

## USER DEFINED OPTIONS (See Filter Module data sheet for more detailed specifications.)

**Number of Channels:** 1 or 2.

**Type:** Butterworth or Bessel.

**Function:** Low-pass, high-pass, band-pass.

**Cutoff (corner) Frequency:** Any value between 0.1Hz to 1MHz,  $\pm$ 2%, low-pass; 1Hz to 600kHz,  $\pm$ 2%, high-pass. Max frequency will depend on gain requirements for frequencies >200kHz.

**Number of Poles (dB/octave):** 1 (6dB), 2 (12dB), 3 (18dB), 4 (24dB) . . . 8 (48dB) and 16dB (96dB).

**Input Configuration:** Differential or single-ended.

**Input Gain:** Any value between 1 and 100. It is recommended to amplify small input signals in order to improve overall signal-to-noise ratio.

**Output Gain:** Any value between 1 and 100.

## OPTIONS

**3FG Gain:** Allows internal gain setting; brings out gain pins from the filter module to the PC Card for internally selecting input and output gains.

## ACCESSORIES

**3F Modules:** Filter/Amplifier Modules.

**CON-045:** 3-Terminal Mating Connector.

**BAT-HE9V:** High Energy Lithium Batteries, 9V.

Specifications subject to change without notice.