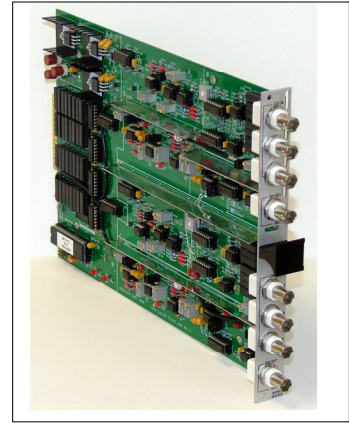


MODEL SC390-EL8

8-Pole, Elliptic Filter/Amplifier Card

- **Number of Channels:** 2.
- **Number of Inputs:** 3.
- **Cutoff Frequency (customer defined):** 1kHz to 50kHz.
- **Input (pre-filter) Gain:** 0dB to 40dB.
- **Output (post-filter) Gain:** -20dB to 0dB.
- **Test and Auxiliary Inputs**
- **Custom Designs Also Available**



DESCRIPTION

The Krohn-Hite Model SC390-EL8 is an 8-pole, Elliptical, Plug-In Filter/Amplifier Card that provides 2 channels of signal conditioning for the Model 39000 Hydrophone Signal Conditioning System. Each channel includes a recessed switch selectable -20dB to 40dB gain control in 10 discrete steps with overload detection and indication. Three selectable independent inputs are available for each channel of hydrophone, auxiliary and test. There is only one output for the input selected per channel. Filter cutoff frequency for each channel is customer defined between 1kHz and 50kHz.

SPECIFICATIONS

Input Characteristics

Number of Inputs: 2 per card, 3 per channel.

Input Type: Programmable differential or single-ended, BNC.

Input Impedance: 1M ohm.

Input Range: $\pm 10V$ peak, 20V peak-to-peak.

Dynamic Range: >80dB.

Gain (per channel): 0dB to 40dB, ± 0.25 dB; switch selectable and/or programmable.

Maximum Signal Amplitude (differential signal X input gain \div 2) + (common mode signal): must be <10V peak.

Common Mode Rejection: >80dB at 60Hz with gain set to 40dB.

Overload Detection Threshold: $\pm 10.5V$ peak, adjustable.

Dynamic Range: >80dB.

Filter Characteristics

Cutoff Frequency Range: 1kHz to 50kHz, $\pm 5\%$.

Filter Types: 8-Pole, Elliptic; 1-pole high-pass.

Filter Function: Low-pass.

Attenuation Rate: 130dB/Octave.

Output Characteristics

Number of Outputs: 2 per card, 1 per channel.

Output Type: Analog BNC, buffered, single-ended.

Output Range: $\pm 10\text{V}$ peak; 20V peak-to-peak.

Output Impedance (dc to 50kHz): 3 ohms.

Load Impedance: >600 ohms.

Passband Frequency Range: 50Hz to 45kHz, $\pm 5\%$.

Passband Ripple: 0.5dB.

Stopband (out of band) Attenuation: >60dB beyond 53kHz.

Inter-Channel Output Crosstalk: >-80dB.

Harmonic Distortion: >-60dB.

Specifications subject to change without notice.