

low pass filters

LPF-8

8-Pole Bessel Filter with DC Differential Amplifier—Single Channel

A signal conditioner combining an 8-pole Bessel filter with a DC amplifier



- Provides greater frequency control for Bilayer, Patch, and Oocyte Clamps
- High quality 8-pole Bessel filter
- 8-Pole low pass Bessel filter with cutoff frequencies from 0.1 Hz to 20 kHz.
- Differential amplifier gains to x200
- Frequency selection with single control
- Input offset adjustment
- Digital frequency readout
- Rack mountable

Specifications

Input	DC Differential
Input Impedance	1 M Ω each channel
Input Range	± 10 V
Input Offset	2 Ranges, ± 100 mV and ± 1.0 V variable from zero with 10-turn control; Max offset compensation
Offset Indicator	20 LED Display
Frequency Ranges:	
Low	0.1 to 199.9 Hz
High	10 Hz to 19.99 kHz
Low Range Resolution	0.1 Hz
High Range Resolution	10 Hz
Gains	x1, x2, x5, x10, x20, x50, x100 and x200
Gain Telegraph Output	2.5 V to 6.0 V in 0.5 V steps, x1 Gain = 2.5 V
Output Impedance	50 Ω
Power Requirements	100-130 VAC or 200-250 VAC 50/60 Hz, 15 VA
Enclosure	Rack Mount Cabinet, H x W x D, 4.4 x 43.2 x 20 cm rack hardware included
Shipping Weight	4.6 kg
Warranty	2 years

The **LPF-8** is a signal conditioner combining an 8-pole low pass Bessel filter and DC amplifier. Special features include a digital frequency readout, visual input offset indicator, clipping indicator, and gain telegraph outputs.

The LPF-8 is the premier low-pass Bessel filter from Warner Instruments and provides superior control of analog signal filtering from 0.1 Hz to 20 kHz. The instrument incorporates low-pass signal filtering and output gains from 1 to 200. Dual selectable signal inputs allow the instrument to be configured to operate in normal, inverted or differential modes.

This instrument features an optically encoded circuit which permits frequency selection in two ranges with a single control. Since the set frequency control is not a physical part of the filtering circuit, adjustments to the instrument do not introduce noise artifacts into the output signal.

The unique circuit design uses no mechanical switching which insures long-term instrument reliability.

User Conveniences

- Frequency is dialed up with a single rotary control in 2 ranges. Resolution is 0.1 Hz or 10 Hz, depending on range selected.
- BYPASS switch selects full amplifier bandwidth for comparison of filtered and unfiltered signal.
- The DC OFFSET/CLIPPING indicator is a zero center display serving two functions; it is used as a null meter with the offset control and it indicates overload (clipping) conditions.
- Gain telegraph signals are provided for data acquisition systems.

Order #	Model	Product
W4 64-0050	LPF-8	Low Pass Filter/DC Amplifier, Single Channel Rack Mount 100-130 VAC
W4 64-1524	LPF-8	Low Pass Filter/DC Amplifier, 200-240 VAC 50/60 HZ