

## Model 31875 Programmable filter

### Features

- 4-pole low pass Butterworth
- 20 corner frequencies available
- 10 Hz to 80 kHz in 1, 2, 4, 6 and 8 steps
- Self-identifying ID for the frequency corner installed in model 133/136 amplifiers
- Filter options available for SAE J211 and ISO6487 impact test requirements



### Description

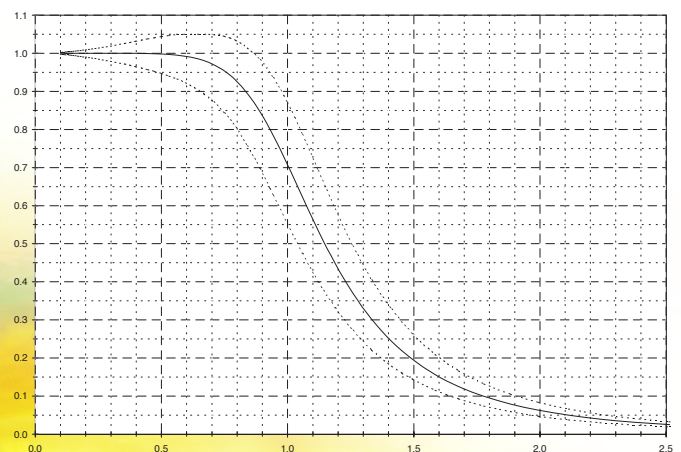
The Endevco® model 31875 low pass filter modules are optional Butterworth filters designed for use with the Endevco model 133 PE Isotron® signal conditioner, model 428 rack mounted PE/Isotron® card, model 436 rack mounted DC amplifier card and the model 136 DC amplifier. The filter options are available with sufficient corner frequencies to accommodate most test requirements.

The self-identifying feature allows quick verification of the filter installed in a particular channel, where each channel will display the filter corner on the LED digital panel meter.

There are 20 corner frequencies available, ranging from 10 Hz to 80 kHz in 1, 2, 4, 6 and 8 steps. The 31875 filter must be specified in the following manner: (P/N 31875-XXXX-Y). The "XXXX" is the -3 dB corner frequency, determined by multiplying XXXX by 10. If this is left blank, the standard 10 kHz (-1000) filter is supplied. (Figure 1 shows the magnitude frequency response for the filter).

NOTE: The filter options of 400 Hz and 2000 Hz are not valid frequencies. The 400 Hz filter has been replaced by 300 Hz. The 2000 Hz option has been replaced by 1650 Hz. These two lower frequency options are specifically made to comply with the filter corner requirements of SAE J211 and ISO6487.

Figure 1: MS EXCEL ANALYSIS: NOMINAL MAGNITUDE FREQUENCY RESPONSE



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Endevco

## Specifications

### Inputs characteristics

Butterworth low pass filter characteristics

### Outputs

Type	4-pole Butterworth
Corner frequency accuracy	± 12% [-3 dB]
Magnitude of error at corner frequency	± 22% maximum
Roll-off (slope)	-24 dB per octave [-80 dB per decade]

### Physical characteristics

Dimensions	0.75" x 0.5" x 0.3"
Weight	1 oz. typical
Case material	Plastic

### Environmental characteristics

Temperature	
Operating	32°F to 122°F [0°C to 50°C]
Storage	-40°F to 185°F [-40°C to 85°C]

Frequency in Hertz	Model number
10	31875-0001-0
20	31875-0002-0
40	31875-0004-0
60	31875-0006-0
80	31875-0008-0
100	31875-0010-0
200	31875-0020-0
300	31875-0030-0
600	31875-0060-0
800	31875-0080-0
1000	31875-0100-0
1650	31875-0165-0
4000	31875-0400-0
6000	31875-0600-0
8000	31875-0800-0
10 000	31875-1000-0
20 000	31875-2000-0
40 000	31875-4000-0
60 000	31875-6000-0
80 000	31875-8000-0

### Notes:

1. Maintain high levels of precision and accuracy using Endevco's factory calibration services. Call Endevco's inside sales force at 800-982-6732 for recommended intervals, pricing and turn-around time for these services as well as for quotations on our standard products



Continued product improvement necessitates that Endevco reserve the right to modify these specifications without notice. Endevco maintains a program of constant surveillance over all products to ensure a high level of reliability. This program includes attention to reliability factors during product design, the support of stringent Quality Control requirements, and compulsory corrective action procedures. These measures, together with conservative specifications have made the name Endevco synonymous with reliability.