



Single Deck, no resistors



Dual Deck, with SMD resistors



Selector Switch version available

## Description

Elma's SMD attenuators are designed for audio, motor control, or other applications where precision and reliability are essential. They save time (no through-hole soldering), space (SMD devices are very small), and money (automated assembly processes reduce costs). SMD resistors are available in standard or customizable values. Versions without SMD resistors are available for users to configure their own values for specific design preferences.

The MV Series Stepped Attenuators are available in 24 positions and in versions from 1 to 8 channels. They employ high-precision (0.1% - 0.5% tolerance), low-noise, thin-film resistors. The 3 micron gold contact system on all MV switches employs PCB traces and not standard switch contacts to ensure the low contact bounce.

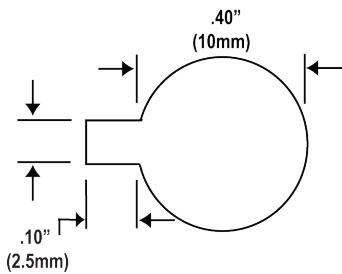
The SMD switches provide for easy assembly as the small PCB only requires a simple 3-wire hookup for audio-in, audio-out, and ground. Elma's switches are renowned for their high quality and durability over time. The switches will continue to work within specifications after 25,000 rotations. They employ 3 microns of gold-plated contacts and are assembled with precision pick-and-place equipment. The MV Series are manufactured in the USA by Elma.

## Features

- Three options of stepped attenuators:
  - With SMD resistors installed, set values
  - With SMD resistors installed, customizable values
  - THT resistors not installed, user-defined values
  - SMD resistors not installed, user-defined values
- Highest quality switch with gold contacts, precision engineering
- Available in mono and stereo versions and various configurations
- 24 positions, up to 4 channels standard
- High-precision resistors, 0.1% - 0.5% standard tolerance
- Low noise, 25ppm, thin-film technology
- Easy 3-wire hookup
- Special version can be used for motor controls or other applications to replace potentiometers
- Customizable shafts, torques, resistance values and tapers

## Recommended Panel Mounting Hole Pattern

The 0.1in notch is for the protruding key at the front of the rotary switch. This keeps the rotary switch from turning when the knob is turned, even if the front panel nut is not tight.



A notch MUST be filed into the mounting-hole or the stepped attenuator could become warped when the hex nut is tightened on the front panel.

Alternatives:

- 1) You can skip filing a notch into your front panel if it is thin enough for you to mount the attenuator with two hex nuts - one on the front and one on the inside of your panel.
- 2) The protruding-key on the switch itself could be filed off, but it is preferable to mount the attenuator with two hex nuts.

# Rotary Switches, Audio

## MV-Series Stepped Attenuators w/SMD Resistors



Rotary  
Switches

### Order Information

MV -  -

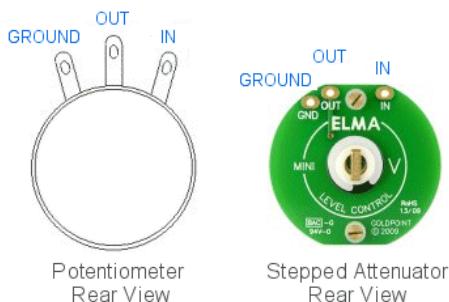
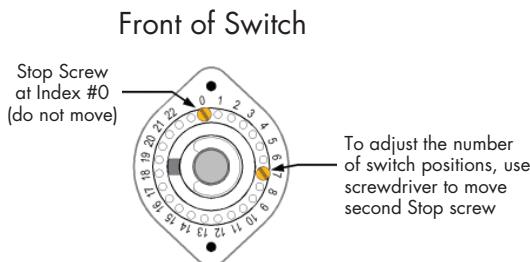
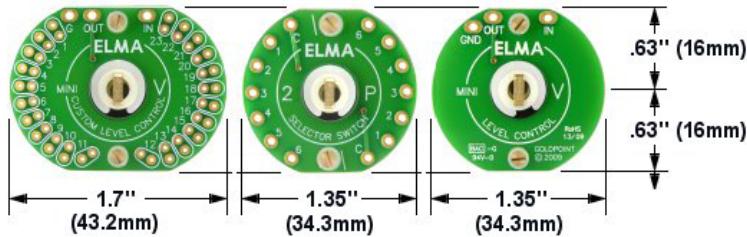
#### Channels/Decks/Wafers

- 1** - 1 deck
- 2** - 2 decks
- 3** - 3 decks
- 4** - 4 decks

#### With or Without Resistors

- 00** - No resistors included
- 5K** - 5K resistance
- 10K** - 10K resistance
- 25K** - 25K resistance
- 50K** - 50K resistance
- 100K** - 100K resistance
- 250K** - 250K resistance

### Line Drawings



# of switch positions	Put second Stop Screw, pt #4124-21, in the following positions.
Note: do not remove the Stop Screw in pos #0.	
2	2
3	3
4	4
5	5
6	6
7	7 shown
↓	
21	21
22	22
23	23

