

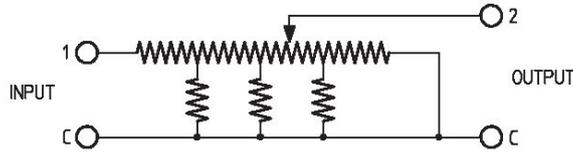
# Important points in using audio curve and log curve of TKD faders

## 1. In General

If you choose an audio curve or log curve in using our TKD faders and rotary attenuators with continuously variable construction, TKD uses a ladder type of circuit and as a result ways of usage are different from other types. Please take care of this point.

## 2. Ladder type of circuit

Shown as below.



The ladder type makes a log curve by constructing resistor elements as in the figure above inside a fader. The features of manufacturing this way are that it is possible to realize improvement of their characteristics especially by making every point at an angle of 15 degrees and thus setting the maximum attenuation in the dead infinity. TKD names this curve an "Audio curve" and makes it with our own characteristics.

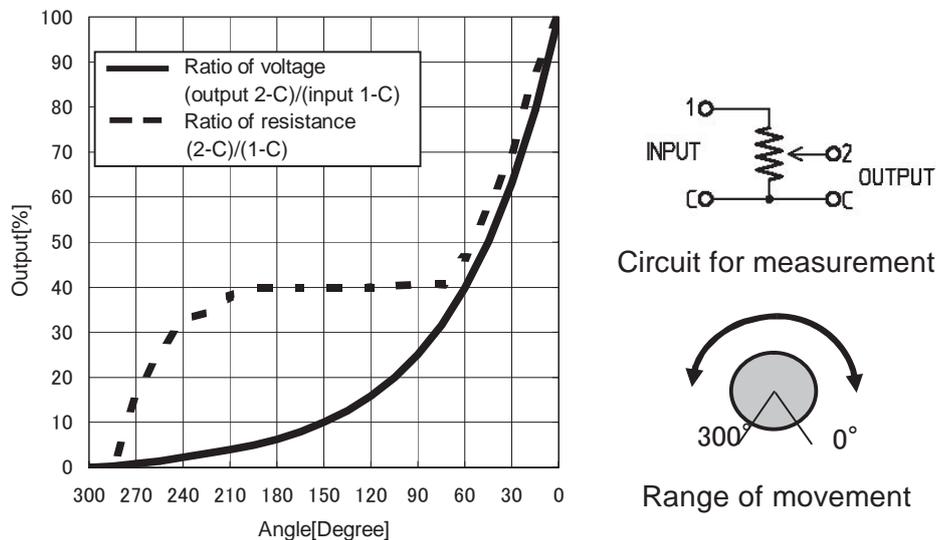
In rotary attenuators we put a name of "Log curve" which is manufactured with 50dB by NHK BSS specifications.

## 3. Features

These attenuators equipped with "Log or Audio curve" can be used for faders, volume controls and the like. They are actually used as variable resistors, potentiometers and voltage dividers.

In case of the ladder construction, they are supposed only to be used for dividers or volume controls, but not for variable resistors. Please take care not to use for setting resistance value, as, if so, we are afraid that a trouble may happen.

Please see the figure below showing the characteristics of a ladder circuit.



Output characteristics for ladder type of a fader(CP601 used with a log curve)

When you use this as for a divider and take out input in between 1-C and output in between 2-C, you can find out the characteristics of voltage output ratio as shown in the figure above.

However you cannot use this as for a variable resistor as shown in the figure as a broken line.

We recommend that our customers use this curve as for use of controlling audio signals directly.