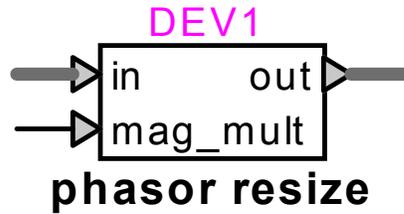


# Phasor operation : phasor resize



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## 1 Description

This device modifies the magnitude of a vector or phasor represented by a 2-signal bundle of its polar coordinates.

### 1.1 Pins

This device has three pins:

<i>pin</i>	<i>type</i>	<i>description</i>	<i>units</i>
in	2-signal bundle	input magnitude	any
		input angle	rad
mag_mult	input pin	magnitude multiplier	rad
out	2-signal bundle	output magnitude	same as in_mag
		output angle	rad

### 1.2 Parameters

No parameters are required for this device.

### 1.3 Input

The input pins may be connected to any control signals.

### 1.4 Output

The outputs are the polar coordinates of the input vector resized by a variable multiplier. The operation is immediate, and is calculated as follows:

$$\begin{aligned} \text{out\_mag} &= \text{in\_mag} \cdot \text{multiplier} \\ \text{out\_rad} &= \text{in\_rad} \end{aligned} \tag{1}$$

