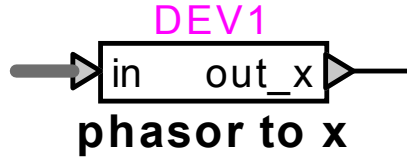


Phasor operation : phasor to x



Phasor operation : phasor to x 1

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1 Description

This device converts a 2-signal (magnitude,angle) phasor bundle into the x value of its (x,y) coordinates.

1.1 Pins

This device has two pins:

<i>pin</i>	<i>type</i>	<i>description</i>	<i>units</i>
in	2-signal bundle	magnitude	any
		angle	rad
out_x	output pin	x-coordinate	same as in_mag

1.2 Parameters

No parameters are required for this device.

1.3 Input

The input pins may be connected to any 2-signal bundle.

The input is a 2-signal bundle of the polar (magnitude and angle) coordinates of a phasor.

The magnitude is the peak amplitude, not the RMS value. The angle is expressed in radians.

1.4 Output

The output is the x-axis projection corresponding to the polar coordinates used as input.

The coordinates conversion from polar to x is immediate, and is calculated as follows:

$$x = \text{magnitude} \cdot \cos(\text{angle}) \tag{1}$$