

# Current-Controlled Voltage Source

ccvs

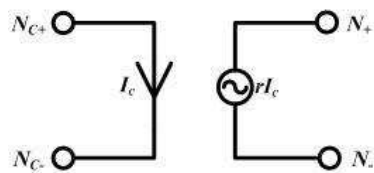


Figure 1: Current-controlled Voltage source element.

*Form:*

**e:**(instance name)  $n_1$   $n_2$   $n_3$   $n_4$  (parameter list)

$n_1$   $n_2$   $n_3$   $n_4$  are the element nodes.

$N_+$   $N_-$   $N_{c+}$   $N_{c-}$  is the node declaration order.

*Parameters:*

Parameter	Type	Default value	Required?
r: gain	DOUBLE	1	no
ro: Output resistance value(Ohms)	DOUBLE	0	no

*Example:*

**ccvs:f1 2 3 1 0 r=1 ro=50**

*Description:*

The current-controlled Voltage source generates an output current that is instantaneously and linearly-dependent on the input voltage to the element. The linear scaling is dependent on a gain factor  $r$ , and an output impedance  $r_o$  is connected in shunt with the output terminals.

*Notes:*

This is the **F** element in the SPICE compatible netlist.

*Version:*

2008.09.24

*Credits:*

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