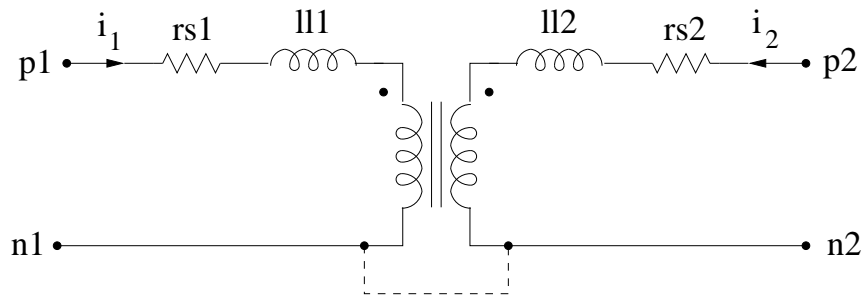


## rt\_xfmr\_2.ece



### Attributes

```
mainnodes: p1 n1 p2 n2
rparms:
+ l1=1m
+ l2=1m
+ k=1
+ rs1=0.1
+ rs2=0.1
+ ll1=0.01m
+ ll2=0.01m
+ tstep=50u
```

### Description

rt\_xfmr\_2.ece is a transformer with coil resistances and leakage inductances. The parameters have the following meaning:

**l1:** self inductance of the first coil.

**l2:** self inductance of the second coil.

**k:** coupling coefficient.

**tstep:** time step used in the circuit file.

The meaning of the parameters **rs1**, **rs2**, **ll1**, **ll2** is clear from the figure.

The dashed connection between the two sides (see figure) should be made *externally* in the circuit file if there is otherwise no connection between the two sides. Alternatively, the nodes

**n1** and **n2** could be given the same node name, which will automatically force such a connection.

This is required because the circuit as a whole can have only one reference node. If the two sides are completely isolated, a part of the circuit will remain floating, leading to a singular matrix.

The dashed wire does not change the circuit behaviour since it does not carry a current, there being no return path.