0.0.1 Port Element P

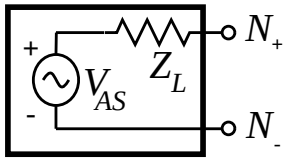

Figure 1: P — port element.

`SPICE` *Form:*
`P`*name* N_+ N_- `PNR=` *PortNumber* [`ZL=` *ReferenceImpedance*]

N_+	is the positive element node,
N_-	is the negative element node and
PNR	is the integer index of the port. The port index must be numbered sequentially beginning at 1. That is, the first occurrence of a `P` element in the input netlist must have `PNR=1` the second occurrence `PNR=2`, etc. (Units: none; Required; Symbol: $PortNumber$;)
ZL	is the reference impedance of port. (Units: Ω; Optional; Default: 50 Ω; Symbol: Z_L;)

Example:

```
PORT1 1 0 PNR=1 ZL=75
```

Description:
As an example of using the port specification with a source, consider the partial circuit in Fig. 2. The spice code defining this is
`P`*name* N_+ N_- `PNR=` *PortNumber* [`ZL=` *ReferenceImpedance*]
[`VIN` N_- `0 PULSE (Pulse Specification)`]

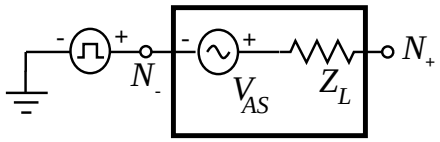

Figure 2: Example of the usage of a P element with a pulse voltage source.

Notes:
There is no equivalent element in *f*REEDA™. V_{AS} in Fig. 1 is not visible to the user and is

used by the program to test for the S parameters.

Credits:

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