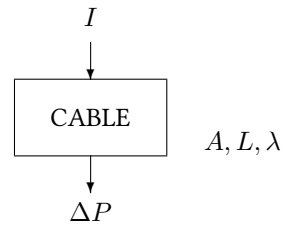


Block CABLE

The CABLE block calculates ohmic losses in a cable.



Name	CABLE
Function	se0003
Inputs	1
Outputs	1
Parameters	3
Strings	0
Group	S

Inputs

- | | |
|---|-----------------|
| 1 | Current I / A |
|---|-----------------|

Outputs

- | | |
|---|---------------------------|
| 1 | Power loss ΔP / W |
|---|---------------------------|

Parameters

- | | |
|---|--|
| 1 | Cable area A / mm^2 |
| 2 | Cable length L / m (single wire) |
| 3 | Ohmic conductance λ / $\Omega \text{ mm}^2 \text{ m}^{-1}$ (e. g., $\lambda_{\text{Cu}} = 0.0178 \Omega \text{ mm}^2 \text{ m}^{-1}$) |

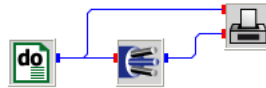
Strings

None

Decription The cable loss is calculated after

$$\Delta P = \frac{2L}{A} \lambda I^2$$

cable.vseit



For a cable area of 4 mm², a length of 10 m and an ohmic conductance of 0.0178 Ω mm² m⁻¹ a **DO** block varies current from 0 to 10 A in steps of 0.01 A.

The **PLOT** block displays the ohmic losses as function of the current.

