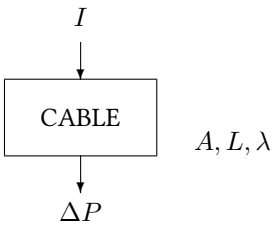
## Block CABLE

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

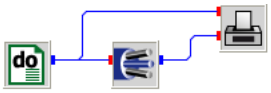
### Strings

None

Decription The cable loss is calculated after

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

cable.vseit



For a cable area of 4 $mm^2$, a length of 10 m and an ohmic conductance of 0.0178 $\Omega\,mm^2\,m^{-1}$ 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.

