

Main equations

Here an equation

$$\dot{Q} = k \cdot A \cdot \Delta T \quad (1)$$

or another one

$$\frac{1}{k} = \left[\frac{1}{\alpha_i r_i} + \sum_{j=1}^n \frac{1}{\lambda_j} \ln \frac{r_{a,j}}{r_{i,j}} + \frac{1}{\alpha_a r_a} \right] \cdot r_{\text{reference}} \quad (2)$$

Nomenclature

Latin Letters

| | | | |
|------------|-----------------------------------|---------------------------------|------------------|
| A | area | m^2 | |
| k | overall heat transfer coefficient | $\text{W}/(\text{m}^2\text{K})$ | see eq. (2) |
| L | length | m | SI base quantity |
| \dot{Q} | heat flux | W | |
| ΔT | temperature difference | K | SI base quantity |
| T | temperature | K | SI base quantity |

Greek Letters

| | | |
|-----------|--------------------------------------|---------------------------------|
| α | convection heat transfer coefficient | $\text{W}/(\text{m}^2\text{K})$ |
| λ | thermal conductivity | W/K |

Subscripts

| | |
|-----|-------------------|
| a | out |
| i | in |
| j | running parameter |
| n | number of walls |