CI-340 Equations

4. C_{leaf} : Leaf stomatal conductance (milimol/m²/s)

Where e_{leaf} saturated water vapor at leaf temperature (bar)

$$C_{leaf} = \frac{W}{\frac{e_{leaf} - e_o}{e_o - e_i} \times \frac{P - e_o}{P} - R_b W} \times 1000$$

$$e_{leaf} = 6.13753 \times 10^{-3} \times e^{T_{leaf} \times \frac{18.564 - \frac{T_{leaf}}{254.4}}{T_{leaf} + 255.57}}$$

T_{leaf} : leaf temperature (°C)

R_b: leaf boundary layer resistance (m²s/mol) -- 0.3 m²s/mol is used.

Leaf temperature should be obtained through the IR temperature sensor. It would be recommended to use the best average value for this temperature determinant. An example procedure could involve a sampling of five values in a given period of time.