



$$V_{IMON_INP} = \left(1 \cdot 10^{-3} \frac{A}{V} \cdot R_{sense1} \cdot I_{in} + 20\mu A \right) \cdot R_{IMON_INP} \quad \text{From datasheet}$$

Include injection current variable, I_{inject}

$$V_{IMON_INP} = \left[\left(\frac{A}{1000V} \cdot R_{sense1} \cdot I_{in} + 20\mu A \right) + I_{inject} \right] \cdot R_{IMON_INP}$$

Solve for I_{inject}

$$I_{inject} = \frac{V_{IMON_INP} - R_{IMON_INP} \cdot \left(20\mu A + I_{in} \cdot R_{sense1} \cdot \frac{A}{1000V} \right)}{R_{IMON_INP}}$$

Example:

VIMON_INP := 1.209V RIMON_INP := 12.4k Ω Rsense1 := 4m Ω

$$I_{\text{inject}}(I_{\text{in}}) := \frac{V_{\text{IMON_INP}} - R_{\text{IMON_INP}} \cdot \left(20 \cdot \mu\text{A} + I_{\text{in}} \cdot R_{\text{sense1}} \cdot \frac{\text{A}}{1000\text{V}} \right)}{R_{\text{IMON_INP}}}$$

