

Spanning naar stroom omvormer met ref spanning: 0-10V naar 4 tot 20mA

$$I = \frac{\left(\frac{U2 * R2}{R1 + R2} + \frac{Uref * R1}{R1 + R2}\right)}{R}$$

$$R = \frac{\left(\frac{U2 * R2}{R1 + R2} + \frac{Uref * R1}{R1 + R2}\right)}{I}$$

Ingevuld:

$$16mA = \frac{1}{R} * \frac{R2}{R1 + R2} * U1$$

$$\frac{1}{R} = \frac{16mA}{\frac{R2}{R1 + R2} * U1} = \frac{16mA}{\frac{10Kohm}{10Kohm + 10Kohm} * 10V} = 3125 \text{ Ohm of } 3.2Kohm$$

$$Uref = \frac{4mA * 3125}{\frac{10Kohm}{20Kohm}} = 25 \text{ Volt}$$