









7.5.3 Selection of the External Resistance

To set the time interval, the external resistance R_{EXT} is selected according to Equation 1:

$$R_{EXT} = 100 \left(\frac{-b + \sqrt{b^2 - 4a(c - 100 T)}}{2a} \right)$$

where

- T is the desired time interval in seconds.
- R_{EXT} is the resistance value to use in Ω.
- a, b, c are coefficients depending on the range of the time interval.

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Table 1. Coefficients for Equation 1

SET	Time Interval Range (s)	а	b	С
1	1 <t≤ 5<="" td=""><td>0.2253</td><td>-20.7654</td><td>570.5679</td></t≤>	0.2253	-20.7654	570.5679
2	5 <t≤ 10<="" td=""><td>-0.1284</td><td>46.9861</td><td>-2651.8889</td></t≤>	-0.1284	46.9861	-2651.8889
3	10 <t≤ 100<="" td=""><td>0.1972</td><td>-19.3450</td><td>692.1201</td></t≤>	0.1972	-19.3450	692.1201
4	100 <t≤ 1000<="" td=""><td>0.2617</td><td>-56.2407</td><td>5957.7934</td></t≤>	0.2617	-56.2407	5957.7934
5	T> 1000	0.3177	-136.2571	34522.4680



