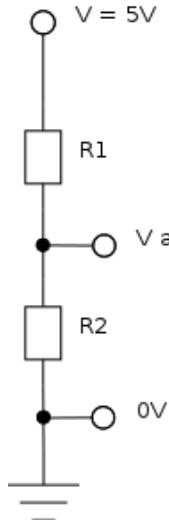


### Finding best and worst case scenarios for tolerance deviations of V, R1 and R2

Adjust the values in red below to change tolerance!



	V Adjust	R1 Adjust	R2 Adjust	V	R1	R2	V + V Adjust	R1 + R1 Adjust	R2 + R2 Adjust	mV across R2	Meter reading mV across R2	Deviation from ideal mV	Deviation as percentage of R2 ideal voltage	Error colour code
<b>Ideal values</b>	$\pm 0\%$	$\pm 0\%$	$\pm 0\%$	5	806	29.4				175.964	176.0			< $\pm 0.01\%$
	+ 0.00%	+ 0.01%	+ 0.01%				5.00000	806.08060	29.40294	175.964	176.0	0.000	0.0000	> $\pm 0.01\%$
	+ 0.00%	+ 0.01%	+ 0.00%				5.00000	806.08060	29.40000	175.947	175.9	-0.017	-0.0096	
	+ 0.00%	+ 0.01%	- 0.01%				5.00000	806.08060	29.39706	175.930	175.9	-0.034	-0.0193	
	+ 0.00%	+ 0.00%	+ 0.01%				5.00000	806.00000	29.40294	175.981	176.0	0.017	0.0096	
	+ 0.00%	+ 0.00%	- 0.01%				5.00000	806.00000	29.39706	175.947	175.9	-0.017	-0.0096	
	+ 0.00%	- 0.01%	+ 0.01%				5.00000	805.91940	29.40294	175.998	176.0	0.034	0.0193	
V across R2	+ 0.00%	- 0.01%	+ 0.00%				5.00000	805.91940	29.40000	175.981	176.0	0.017	0.0096	
	+ 0.00%	- 0.01%	- 0.01%				5.00000	805.91940	29.39706	175.964	176.0	0.000	0.0000	
	+ 0.01%	+ 0.01%	+ 0.01%				5.00050	806.08060	29.40294	175.981	176.0	0.018	0.0100	
	+ 0.01%	+ 0.01%	+ 0.00%				5.00050	806.08060	29.40000	175.964	176.0	0.001	0.0004	
	+ 0.01%	+ 0.01%	- 0.01%				5.00050	806.08060	29.39706	175.947	175.9	-0.016	-0.0093	
	+ 0.01%	+ 0.00%	+ 0.01%				5.00050	806.00000	29.40294	175.998	176.0	0.035	0.0196	
	+ 0.01%	+ 0.00%	- 0.01%				5.00050	806.00000	29.39706	175.964	176.0	0.001	0.0004	
	+ 0.01%	- 0.01%	+ 0.01%				5.00050	805.91940	29.40294	176.015	176.0	0.052	0.0293	
	+ 0.01%	- 0.01%	+ 0.00%				5.00050	805.91940	29.40000	175.998	176.0	0.035	0.0196	
<b>Voltage tolerance</b>	+ 0.01%	- 0.01%	- 0.01%				5.00050	805.91940	29.39706	175.981	176.0	0.018	0.0100	
<b>0.01%</b>	- 0.01%	+ 0.01%	+ 0.01%				4.99950	806.08060	29.40294	175.946	175.9	-0.018	-0.0100	
<b>R1 tolerance</b>	- 0.01%	+ 0.01%	+ 0.00%				4.99950	806.08060	29.40000	175.929	175.9	-0.035	-0.0196	
<b>0.01%</b>	- 0.01%	+ 0.01%	- 0.01%				4.99950	806.08060	29.39706	175.912	175.9	-0.052	-0.0293	
<b>R2 tolerance</b>	- 0.01%	+ 0.00%	+ 0.01%				4.99950	806.00000	29.40294	175.963	176.0	-0.001	-0.0004	
<b>0.01%</b>	- 0.01%	+ 0.00%	- 0.01%				4.99950	806.00000	29.39706	175.929	175.9	-0.035	-0.0196	
<b>Zero tolerance</b>	- 0.01%	- 0.01%	+ 0.01%				4.99950	805.91940	29.40294	175.980	176.0	0.016	0.0093	
<b>0.00%</b>	- 0.01%	- 0.01%	+ 0.00%				4.99950	805.91940	29.40000	175.963	176.0	-0.001	-0.0004	
	- 0.01%	- 0.01%	- 0.01%				4.99950	805.91940	29.39706	175.946	175.9	-0.018	-0.0100	

## Meter ranges

### Tolerance of meter ranges by reading

Range	Max reading	Resolution	Tolerance	Input voltage: <b>0.175964</b>		
				+ Max Error	0 Error	- Max Error
200mv	199.9	0.1mV	± (0.5% of reading +0.1mV)	176.9	176.0	175.0
2V	1.999	1mV	± (0.5% of reading +1mV)	0.178	0.176	0.174
20V	19.99	10mV	± (0.5% of reading +10mV)	0.19	0.18	0.17
200V	199.9	0.1V	± (0.5% of reading +100mV)	0.3	0.2	0.1
600V	600	1V	± (0.8% of reading +2V)	0	0	0

Range	Max reading	Resolution	Tolerance	Input current <b>0.001877</b>		
				+ Max Error	0 Error	- Max Error
2mA	1.999	1uA	± (0.8% of reading + 1uA)	1.893	1.877	1.861
20mA	19.99	10uA	± (0.8% of reading + 10uA)	1.90	1.88	1.85
200mA	199.9	100uA	± (1.5% of reading + 100uA)	2.0	1.9	1.8

Range	Max reading	Resolution	Tolerance	Input resistance <b>18.63</b>		
				+ Max Error	0 Error	- Max Error
200R	199.9	0.1R	± (0.8% of reading + 0.3R)	19.1	18.6	18.2
2K	1.999	1R	± (0.8% of reading + 1R)	0.020	0.019	0.017
20K	19.99	10R	± (0.8% of reading + 10R)	0.03	0.02	0.01
200K	199.9	100R	± (0.8% of reading + 100R)	0.1	0.0	-0.1
2M	1.999	1K	± (0.8% of reading + 1K)	0.001	0.000	-0.001
20M	19.99	10K	± (0.8% of reading + 20K)	0.02	0.00	-0.01