

## Current probe selection guide

	Bandwidth Hz to MHz	Peak Pulse	Max AC <sub>p</sub>	Derate Below	Derate Above	Max DC	Amp-S Product	Current/ Div Display Range	Rise Time	Insertion Impedance @ 1 MHz	Max Barewire Voltage	Max Conductor Diameter	Cable Length
<b>TCP300 and TCP400 Series Products For TEKPROBE, TekConnect and Standard 50 Ohm / 1MegOhm BNC Oscilloscope Systems</b>													
<a href="#">TCP312 w/TCPA300</a>	DC to 100	50A	60A	N/A	50 kHz	5A - 1A/V 30A - 10A/V	50A* <sup>5</sup> μS - 1A/V 500A* <sup>5</sup> μS -	1A/V 10A/V	=3.5 ns	0.08 Ohm	Insulated Wire Only	3.8 mm (0.15 in.)	1.5 m
<a href="#">TCP312</a> using CT4	0.5 to 20	20 kA* <sup>5</sup> 2	2 kA* <sup>5</sup> 3	50 Hz	1.2 kHz	20A	0.5A* <sup>1</sup> S	20A/V 10kA/V	<17.5 ns	2.5 mOhm	3 kV	38 mm (1.5 in.)	1.5 m
<a href="#">TCP305 w/TCPA300</a>	DC to 50	50A	100A	N/A	2 kHz	25A - 5A/V 50A - 10A/V	500A* <sup>5</sup> μS - 5A/V NA - 10A/V	5A/V 10A/V	=7 ns	0.035 Ohm	Insulated Wire Only	3.8 mm (0.15 in.)	1.5 m
<a href="#">TCP305</a> using CT4	0.5 to 20	20 kA* <sup>5</sup> 2	2 kA* <sup>5</sup> 3	50 Hz	1.2 kHz	20A	5A* <sup>5</sup> S typ	100A/V 10kA/V	<17.5 ns	1.1 mOhm	3 kV	38 mm (1.5 in.)	1.5 m
<a href="#">TCP303 w/TCPA300</a>	DC to 15	150A	424A	N/A	1 kHz	25 - 5A/V 150 - 50A/V	3,000A* <sup>5</sup> μS - 5A/V 15,000A * <sup>5</sup> μS - 50A/V	5A/V 50A/V	=23 ns	0.01 Ohm	600V RMS CAT I & II 300V RMS CAT III	21 mm x 25 mm (0.83 x 1.0 in.)	2 m

<a href="#">TCP404XL</a>	DC to 2	750A	1414A	N/A	1.8 kHz	750A* <sup>5</sup> - 1A/mV	NA - 1A/mV	1A/mV	=175 ns	0.1 mOhm	600V RMS CAT I & II 300V RMS CAT III	21 mm x 25 mm  (0.83 x 1.0 in.)	8 m
<a href="#">w/TCPA4 00</a>						500A - 1A/mV							
<b>Direct Connect Current Probes</b>													
<a href="#">TCP0030</a>	DC to 120	50 A	84 A	N/A	5 kHz	5 A	50 A- $\mu$ S - 1 A/V	1 A/V* <sup>5</sup>	$\leq$ 14.5 ns	0.08 $\Omega$	Insulated Wire Only	3.8 mm (0.15 in.)	2 m
						30 A	500 A- $\mu$ S - 10 A/V	10 A/V* <sup>5</sup>					
<a href="#">TCP202</a>	DC to 50	50 A	40 A	N/A	20 kHz	15 A	500x10 <sup>-6</sup>	* <sup>4</sup>	=7.0 ns	0.07 $\Omega$	300 V CAT I	0.15 in.	2.2 m
<a href="#">TCP202 w/CT4</a>	0.5 to 20	20 kA* <sup>2</sup>	2 kA* <sup>3</sup>	50 Hz	1.2 kHz	15 A	0.1	* <sup>4</sup>	=17.5 ns	30 m $\Omega$	3 kV	1.5 in.	2.2 m
<b>AM503B*<sup>0</sup> or AM5030*<sup>0</sup> Amplifier Current Probes</b>													
<a href="#">A6312</a>	DC to 100	50 A	40 A	N/A	20 kHz	20 A	100x10 <sup>-6</sup>	1 mA to 5 A* <sup>1</sup>	=3.5 ns	0.1 $\Omega$	300 V CAT I	0.15 in.	2 m
<a href="#">A6312 w/CT4</a>	0.5 to 20	20 kA* <sup>2</sup>	2 kA* <sup>3</sup>	50 Hz	1.2 kHz	20 A	0.1	20 mA to 5 kA* <sup>1</sup>	=17.5 ns	30 m $\Omega$	3 kV	1.5 in.	2 m
<a href="#">A6302</a>	DC to 50	50 A	40 A	N/A	20 kHz	20 A	100x10 <sup>-6</sup>	1 mA to 5 A* <sup>1</sup>	=7.0 ns	0.1 $\Omega$	300 V CAT I	0.15 in.	2 m
<a href="#">A6302 w/CT4</a>	0.5 to 20	20 kA* <sup>2</sup>	2 kA* <sup>3</sup>	50 Hz	1.2 kHz	20 A	0.1	20 mA to 5 kA* <sup>1</sup>	=17.5 ns	30 m $\Omega$	3 kV	1.5 in.	2 m
<a href="#">A6302XL</a>	DC to 17	50 A	40 A	N/A	20 kHz	20 A	100x10 <sup>-6</sup>	1 mA to 5 A* <sup>1</sup>	=20 ns	0.1 $\Omega$	300 V CAT I	0.15 in.	8 m
<a href="#">A6302XL w/CT4</a>	0.5 to 13	20 kA* <sup>2</sup>	2 kA* <sup>3</sup>	50 Hz	1.2 kHz	20 A	0.1	20 mA to 5 kA* <sup>1</sup>	=20 ns	30 m $\Omega$	3 kV	1.5 in.	8 m

<a href="#">A6303</a>	DC to 15	500 A	200 A	N/A	20 kHz	100 A	10,000x 10 <sup>-6</sup>	5 mA to 50 A* <sup>1</sup>	=23 ns	0.02 O	600 V CAT II	0.83 in.	2 m
<a href="#">A6303XL</a>	DC to 10	500 A	200 A	N/A	1.8 kHz	100 A	10,000x 10 <sup>-6</sup>	5 mA to 50 A* <sup>1</sup>	=35 ns	0.02 O	600 V CAT II	0.83 in.	8 m
<a href="#">A6304XL</a>	DC to 2	700 A	700 A	N/A	1.8 kHz	500 A	0.4	500 mA to 200 A* <sup>1</sup>	=175 ns	0.2 O	600 V CAT II	0.83 in.	8 m
<b>Other Current Probe Solutions</b>													
<a href="#">P6021</a>	120 to 60	250 A	15 A	300 Hz	0.5 MHz	0.5 A	500x10 <sup>-6</sup>	20 mA or 100 mA* <sup>1</sup>	=5.8 ns	0.03 O	600 V	0.15 in.	1.5 m
<a href="#">P6021 w/CT4</a>	120 to 20	20 kA* <sup>2</sup>	2 kA* <sup>3</sup>	300 Hz	1.2 MHz	20 A	0.5	400 mA or 100 A* <sup>1</sup>	=17.5 ns	0.03 O	3 kV	1.5 in.	1.5 m
<a href="#">P6022</a>	935 to 120	100 A	6 A	3 kHz	10 MHz	0.2 A	9x10 <sup>-6</sup>	10 mA or 100 mA* <sup>1</sup>	=2.2 ns	0.03 O	600 V	0.10 in.	2.75 m
<a href="#">CT1</a>	25 K to 1000	12 A	1.4 A			0.3 A	1x10 <sup>-6</sup>	2 mA* <sup>1</sup> (5 mV/mA)	=0.35 ns	1 O	175 V <sub>RMS</sub> CAT I	0.070 in.	1.07 m
<a href="#">CT2</a>	1.2 K to 200	36 A	7 A			0.3 A	50x10 <sup>-6</sup>	10 mA* <sup>1</sup> (1mV/mA )	=0.5 ns	0.1 O	175 V <sub>RMS</sub> CAT I	0.052 in.	1.07 m
<a href="#">CT6</a>	250 K to 2000	6 A	0.7 A			0.2 A	0.25x10 <sup>-6</sup>	2 mA (5mV/mA )	<200 ps	1.1 O	30 V <sub>RMS</sub>	0.032 in.	1 m

\*0 Amplifier no longer available; current probes still available.

\*1 Scope set at 10 mV/Div.

\*2 Based on voltage breakdown.

\*3 Based on thermal heating limits in CT-4.

\*4 Depends on instrument used.

\*5 Derated w/ duty cycle and frequency.