

When specifying Current Transformers, the burden (or load) imposed by the cable must be taken into account. The terminations of the cable at the CT and at the Meter are here considered to be secure and of negligible resistance (less than  $0.01\Omega$ , the equivalent of 0.5VA in total at 5 Amp).

If the total burden exceeds the rated value of the CT, accuracy will not be maintained no matter what current is flowing. Thus, for a CT with a 5 Amp secondary rated at 5VA, the total burden must be less than  $0.2\Omega$ .

The chart below lists the resistances of various cable types and lengths and the equivalent burdens at a current of 5 Amp. At 1 Amp, the burden is a factor of 25 less.

<b>Resistance of Cables and Burdens imposed on CTs</b>										
	5 Metres Cable Run		10 Metres Cable Run		25 Metres Cable Run		50 Metres Cable Run		100 Metres Cable Run	
0.5mm <sup>2</sup> Cable	0.4Ω	10VA	0.8Ω	20VA	2.0Ω	50VA	4.0Ω	100VA	8.0Ω	200VA
1.0mm <sup>2</sup> Cable	0.2Ω	5VA	0.4Ω	10VA	1.0Ω	25VA	2.0Ω	50VA	4.0Ω	100VA
1.5mm <sup>2</sup> Cable	0.14Ω	3.5VA	0.28Ω	7VA	0.7Ω	17VA	1.4Ω	35VA	2.8Ω	70VA
2.5mm <sup>2</sup> Cable	0.08Ω	2VA	0.16Ω	4VA	0.4Ω	10VA	0.8Ω	20VA	1.6Ω	40VA
4.0mm <sup>2</sup> Cable	0.047Ω	1.2VA	0.094Ω	2.3VA	0.235Ω	6VA	0.47Ω	12VA	0.94Ω	24VA