



# Why measure Low Resistance?

Low resistance measurement is performed for many reasons, including, but not limited to Safety, Performance and Quality testing. Below we will look at a number of applications where Low Resistance Measurement plays a vital function;

## **Component Manufacturing**

Manufacturers of electrical components such as resistors, inductors and chokes all have to verify that their product meets the specified tolerances, end of production line and quality control testing.

## **Cable manufacturers**

For a cable manufacturer the resistance of the copper wires they produce is of utmost importance. From a safety point of view if the resistance of the wire is too high it is indicative of not enough copper is being supplied, which reduces the current carrying capability of the cable. If the resistance is too low, the manufacturer is being too generous on the cable diameter using more copper than he needs to, which can be very expensive in the long run

## **Aerospace and Military**

For safety and quality control, resistance bonding measurements on aircraft and military vehicles, it is necessary to ensure that all equipment installed in aircraft is electrically connected to the air frame, including galley equipment. Tanks and other military vehicles have the same requirements.

## **Wind Farm Maintenance**

To protect the turbine from damage due to lightning, each blade on the turbine is fitted with a large metal cable fitted to a receptacle on the end of the blade which runs through the body of the turbine to the grounding system. As part of a periodic maintenance procedure the resistance of the cable is measured to ensure it has not been damaged by lightning strikes and is still capable of carrying any dangerous current to ground

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