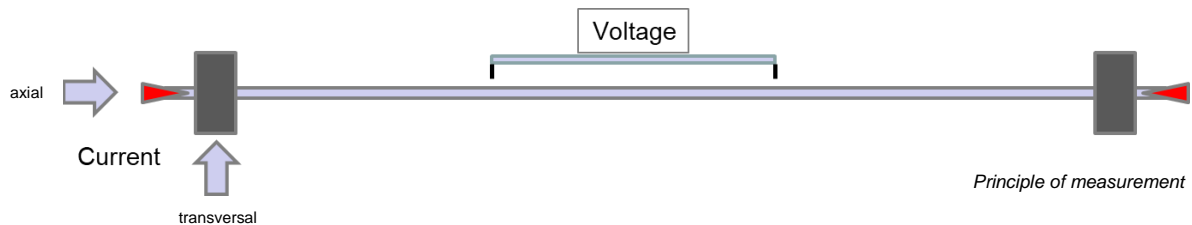


## Axial injection

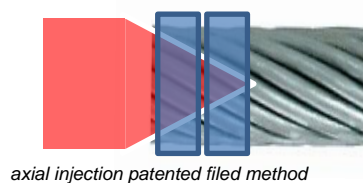
*an option that significantly improves the measurement of large conductors*



### DESCRIPTION

AESA has developed a new patent filed method of measuring the linear resistance of electrical conductors by axial current injection. It provides manufacturers with an important advance in the measurement of metal conductors. It pushes back the limits of traditional methods while providing a significant improvement in measurement reliability.

Rather than injecting it transversely, current is injected axially. In this way, each wire in the conductor is in direct contact with the current source, thus minimizing the contact resistance effect between wires. As a result, the accuracy and reliability of the measurement is significantly enhanced.



### KEY FEATURES

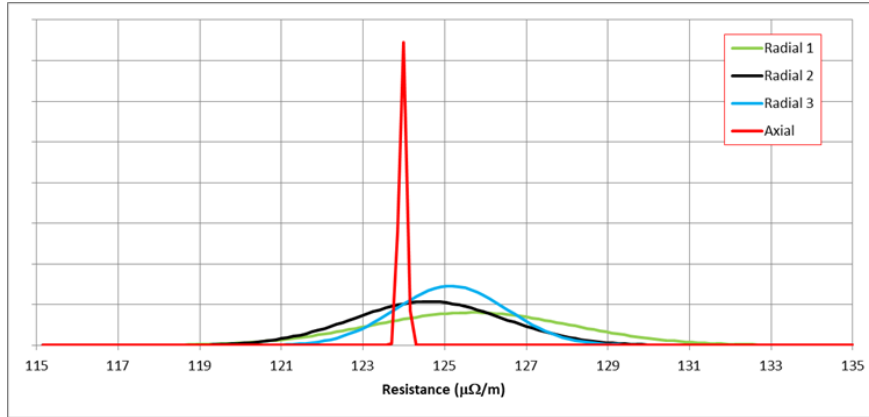
- **Accuracy significantly enhanced**
  - each wire is in contact with the power source
  - the measurement is significantly less affected by corrosion
  - Kelvin method (4 points) according to the standard IEC 60468
- **Opens up new possibilities**
  - for aluminium conductors
  - for very large cables cross sections
  - for waterproofing cables (e.g. Aquablok, Milliken, grease,...)
- **Compatible with existing equipment**
  - The customer's existing ResTest can also be upgraded
- **User friendly**
  - Both modes available on the same unit (axial & radial)
  - The software manage the injection and measuring mode



AESA Cortailod

### KEY BENEFITS

When the repeatability or reproducibility of the measurement is not sufficient, it is difficult to define which is the correct measured value. In this case, axial injection allows much accurate and more realistic results (red curve in the image below).



Improved accuracy

### TECHNICAL SPECIFICATIONS

Different kits are available to cover the different conductor sizes. Each kit includes the appropriated tools and connectors for copper and aluminium.

Kit		Conductor size	Part number
1	small	50 - 630 mm <sup>2</sup>	<a href="#">51.0030.0104.0</a>
2	medium	400 - 2'000 mm <sup>2</sup>	<a href="#">51.0030.0105.0</a>
3	large	630 - 3'500 mm <sup>2</sup>	<a href="#">51.0030.0106.0</a>
1 + 3	combined	50 - 3'500 mm <sup>2</sup>	<a href="#">51.0030.0107.0</a>



Example of kit 2 (medium)



Example of connection

*This option only works if used with one of the AESA ResTest family instruments and only for sample measurement. The innovative measuring principle is patent filed by AESA.*