STRAIN GAUGE INSTALLATION
-40 to +250 °C

APPLICATIONS

- Covers virtually all industries that operate within this temperature range
- Load cells.
- Structural testing
- FEA correlation predictive analysis.
- Frequency response applications.
- Static and dynamic measurements.

As temperatures move to extremes, so choice of strain gauges, adhesives and components decreases.

Aspects requiring particular attention include:

- Thermal expansion coefficient of the material and the strain gauge.
- Expected strain limits at test temperature and number of temperature cycles.
- Modulus effects with overall performance.
- Environmental sealing is critical for a successful installation.
- Solder melting points and use of fluxes to get quality solder joints.
- Inter-bridge wires and cables need to be Kapton or PTFE based materials once 180°C is exceeded.

There are three main adhesive types that cover most installations. They are epoxy, epoxy-phenolic or polyimide based products. Each has benefits which guide selection based on the project specification and installation considerations.

An installation of this nature should only be carried out by experienced technicians with an appreciation of the detail required to provide reliable measurements.

When provided with comprehensive information of the project; environment, accuracy, expectations etc. Procter & Chester will provide the ideal solution and final product combined with confidentiality and full engineering support.