



DELIVERING EXCELLENCE

# Thermocouple TGT (Turbine Gas Temperature) Arrays

## FEATURES

- K Type, Class 1/Special Limits thermocouple
- Manufacture solely from MI cable
- Multiple connection options to engine harness
- Corrosion resistant
- Hermetically sealed
- Optimised design to suit engine application
- Robust designs for extreme aerospace environments

## BENEFITS

- High individual station and system accuracy
- Low drift (stable accuracy)
- Fast response time
- Pre-formed for easy fitment
- Light weight design
- Vey high temperature capability of whole arraybetween stations
- Robust high torque terminals
- Reliable and long life
- Proven technology with over 30 years of pedigree
- High levels of dielectric and insulation resistance

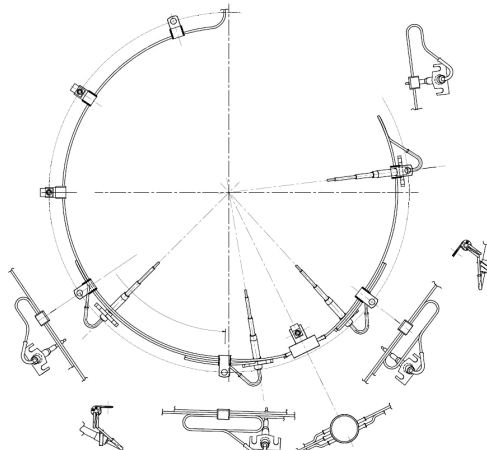
## APPLICATIONS

- RR: RTM322

- Auxitrol Weston's TGT Thermocouples have been individually designed for and certified on multiple engines for various customers. These TGT arrays have amassed millions of flight hours.
- Design options include Connectors, High Temperature Connector terminations Compact or Flying lead designs, Terminal or, bespoke engine mounting fixing points and unique intrusive lengths.
- The whole TGT array is manufactured from high temperature oxidation and

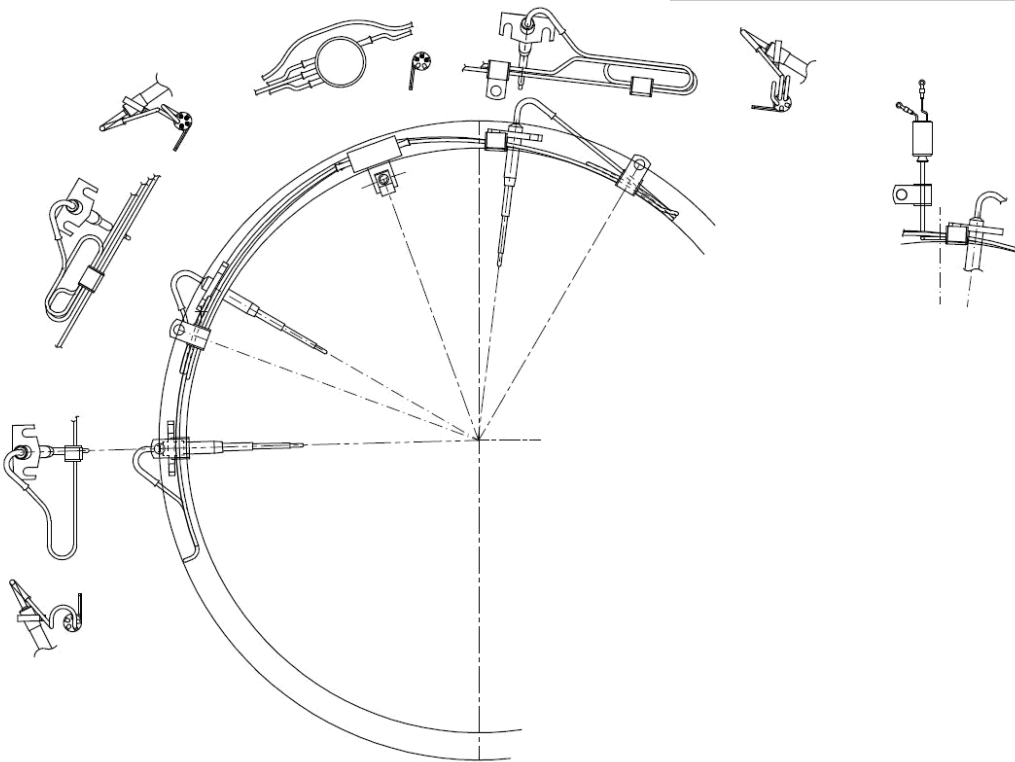
corrosion resistant materials, capable of long life in a cumbustion environment.

- The MI length for each thermocouple measurement station are closely matched for DC Resistance to give improved accuracy as a complete TGT System.
- High accuracy is achieved by the use of BS EN 60584-2 Class 1 or ASTM E230M special Limits Type K thermocouple materials for the entire circuit, with optimum response time (time constant) achieved by utilising small diameter elements.



### Typical Performance Specification

Measured temperature	-75°C up to 1050°C (higher temperatures can be achieved for short durations)
Output	BS EN 60584-2 Class 1 / ASTM E230M Special Limits, Type K
Insulation Resistance	>1GΩ at 500V DC
Life	>40,000 Operating Hours (depending on flight temperature profile)
Reliability	Typically >850,000 Flight Hours (MTBF)
Terminals & Connectors	EN2997, ESC10, etc Ni/Cr: 10-32 UNF-2A thread, Ni/Al: ¼ UNF-2A thread



Examples shown above are for information, dimensions can be modified to meet unique installations

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