



**Q.Tip: Measuring Temperature – Gantner Instruments DAQ System Highlight – A105**

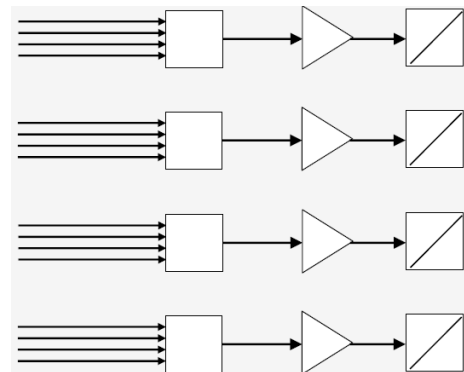
*A105 – RTD Measurement Module*

**Birth of a Module**

1. Mahle Behr Testing Team: “we know that the A5-1 is the most accurate (0.05 K) module in the market but for future test facilities we need Pt100 with 0.02 K. We believe that only Gantner Instruments can provide this.”
  - 17400 Employees
  - 36 Production Sites
  - 17 R&D Centers

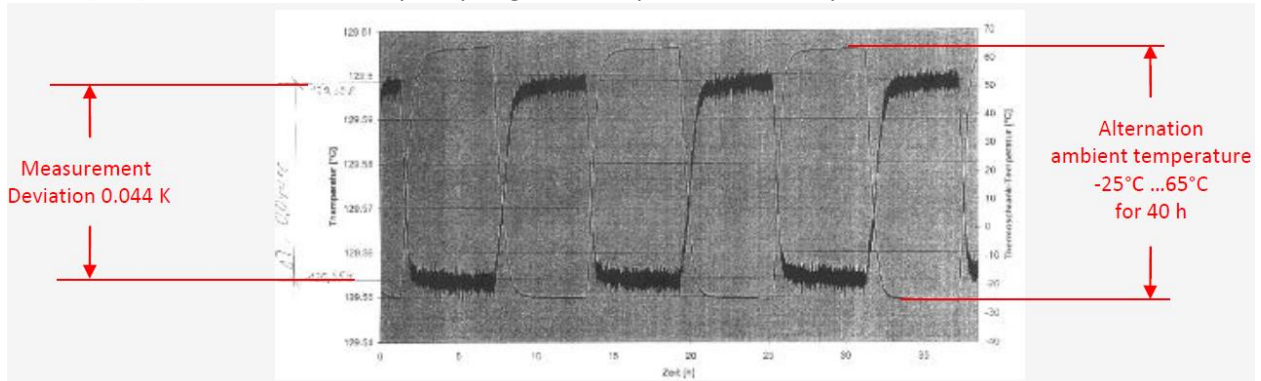
**Highlights**

- 4 x real channels per module
- Galvanic isolation between channels
- Better EMC behavior vs. A5-1
- Selectable excitation current: 1 mA, 100 µA (CR version)
- Measuring rate per channel: 10 Hz
- Accuracy: 0.05 K
- Stability: 0.02K/10K



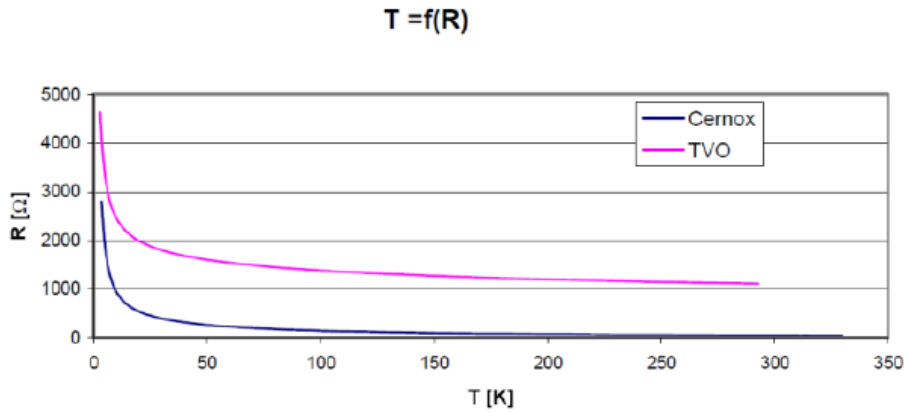
**Case Studies**

1. German Weather Service (DWD)
  - Meteorological measurement DAQ system (1<sup>st</sup> system)
  - Approximately 500 modules
  - Project won in 2003 with A5-1
  - Meteorological measurement DAQ system (2<sup>nd</sup> system)
  - Approximately 800 modules
  - Project won in 2014 with A105
2. IVECO (FPT): test stands for heavy duty engines. Temperature stability test of the module.





- Max-Planck: institute for plasma physics. Temperature measurement at fusion reactor. Measurement of low temperatures: 3 K to 300 K



- Manager of Test Systems at LuK:

*“your modules are so extremely good, better than our calibration stuff and better than what we had before!”*