



ERT

Multi-Channel RTD Response Time Test Unit

About

A PC-based system including hardware, software, training, and documentation is offered by AMS for in-situ response time testing of RTDs using the Loop Current Step Response (LCSR) technique. With this system, up to 5 RTDs can be tested simultaneously to reduce test time and to increase the efficiency of the measurements. This system incorporates over 30 years of AMS experience in RTD response time testing in nuclear power plants. The AMS system is designed to sample and analyze the LCSR data, to obtain the response times of RTDs, to display the results on a computer screen, to print the results, and to store the data for trending.

LCSR Analyzer / Calibration Unit

Laptop computer with USB communication to ERT Signal Generator & MLCSR software provides user interface for:

- Configuration of sensors
- Configuration of data acquisition parameter
- Display of LCSR Data as it's being acquired
- Averaging of multiple data sets to minimize the effects of temperature streaming
- Analysis of data and display of results
- Recording of plant conditioning during tests
- Saving data
- Viewing previously saved data

Calibration Unit - ELC-Q:

Used to provide a functional test of ERT and LCSR Analyzer prior to in-plant tests

- Dimensions: 8"x6"x11"
- Weight: 6 lbs (2.7 kg)
- Power Requirements: 110 - 255 VAC 47-63 Hz, 10 Watts
- Temperature / Humidity: 0 – 45°C/ 5 – 95% non-condensing



Model ERT LCSR Signal Generator

Resistance Range:	50 – 500Ω +/- 2.5% FS
Bridge Output Range	+/- 10 Volts
Anti-alias Low Pass Filter	495 Hz
Power Supplied to RTD	Variable between 0.01-9 watts
Number of Channels	One to Five, Selectable
Input Connection	4mm Banana Jacks
Signal Gain	20-1000
CMR (0-60 Hz):	110db
RTD Current Accuracy	+/- 2.0%
Dynamic Resolution	16 bits, 1 in 65, 536
Sampling Interval	0.01 to 0.10 Seconds
Warm-up Time	15 Minutes Recommended
Power Requirements	110-255 VAC 47-63 Hz, 80 Watts
Dimensions	14"x14"x8"
Weight	9 lbs (8.6 kg)
Temperature / Humidity	0 – 45°C/5 – 95% non condensing

10CFR50 Appendix B Program

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