



rpc

SCIENCE & ENGINEERING

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Ultrasonic Measurement Devices

RPC has been involved in development of ultrasonic devices for more than 20 years. The concentration of our research has been driven by industry demand for very accurate on-line measurements of station parameters such as flow, temperature and pipe wall thickness. RPC uses the transit-time technique and employs the concept of virtual instrumentation technology to integrate various hardware and software components in one operating system. RPC developed its proprietary DSP procedures to measure the time difference with a picosecond precision. As a consequence, in standard conditions, the flow and thickness can be measured with a resolution better than ± 1 mm/s and $0.1 \mu\text{m}$, respectively. RPC transducers can continuously operate at temperatures up to 500°C .

Qualifications

RPC's staff includes highly qualified senior ultrasonics specialists and senior mechanical engineers that provide capability to complete software and hardware development and construction of new computerized devices. We have a support staff of technologists and machinists that utilize our fully equipped machine shop to produce specialized prototype fixtures and transducer mounts on-site. RPC has proven success in the CANDU nuclear industry with installations all over the world.

Services

- Custom development of computerized industrial instrumentation
- Custom development software for data acquisition and signal processing
- Custom development of ultrasonic sensors for long term, high temperature plant system monitoring
- Custom design of turn-key on-line monitoring systems, hardware, site installation and training

Products Available

- RPC-TMHT-2 Advanced Ultrasonic System for Continuous Monitoring of Pipe Wall Thickness
- RPC-UTHT-1 Ultrasonic Liquid Temperature Monitoring System
- RPC-FLMT-1 Medium Temperature Ultrasonic Flowmeter
- RPC-FLHT-2 High Temperature (8) Channel Ultrasonic Flowmeter
- RPC-UTHT-2 High Temperature Ultrasonic (8) Channel Thickness, OD and Liquid Temperature

Contact

For further information regarding our products and services please contact:

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RPC's Quality Management System is registered to ISO 9001:2008.