Case Study



Ranger & Micronics provide Clamp-On, Non-invasive, Thermal Metering Solutions for BAA - Terminal 5 Heat Measurement

In response to the Terminal 5 specification for Clamp-On - Ultrasonic Heat Meters for simple maintenance, high availability and minimum down time Ranger have supplied the CALEC® ST - Integrator from Aquametro combined with Micronics Ultraflo 2000 - Clamp-On Ultrasonic Flow meters. The CALEC® ST - Ultraflo 2000 combination provides an innovative and cost-effective energy measurement solution for fixed or temporary applications. Configurable for Heating or Cooling applications the system elements for a composite thermal meter application comprise:

- 1 Clamp-On, non-invasive Flow Meter
- 1 Pair of Temperature Sensors 2- or 4-wire Pt100 or Pt500 temperature sensors
- 1 Integrator / Energy Calculator

Custody Transfer meters require immersion temperature sensors, however, for monitoring and general energy management applications, Clamp-On sensors can be used providing a totally non-invasive system. Associated benefits include no disruption of services or problems associated with system drain down for maintenance, providing minimum downtime



and maximum availability plus significant reductions in meter supply and installation costs for large meter or retrofit applications. The system can be applied in a stand-alone mode and communicate totalised energy and volumetric values or selected alarm conditions via relay outputs or integrated with BEMS, AM&T or Billing systems via M Bus and other industry standard communications.

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