

Liquid CO₂ Prover Flow Computer

Client:

TÜV SÜD NEL

Location:

East Kilbride, Scotland

Equipment:

Flow Computer

- Density calculated in accordance with NIST Span and Wagner equation
- Repeatability selectable between Fixed and Progressive (API MPMS 4.8 Appendix A)
- Modbus TCP / IP communication link with NEL DAQ (Data Acquisition System)

Project background

Proserv received an enquiry from TÜV SÜD NEL for the supply of a flow computer & associated panel to interface with an FMD-007 small volume prover.

The panel was to be installed in their state-of-the-art calibration and testing facility in Central Scotland to verify the accuracy of customers' flow meters used in the measurement of liquid CO₂ as part of the Carbon Capture and Storage (CCS) process.

This represented a key strategic move for the Proserv Measurement Team with CCS identified as a growing market as countries aim to reduce greenhouse gas emissions. It was our first step into CCS measurement and paved the way for applying our expertise in flow measurement to further CCS opportunities.

Chosen for our reputation

With over 200 metering control systems supplied so far to the industry, Proserv was chosen because of our system's proven quality and reliability. We had previously completed successful projects for this client and so had a reputation for being flexible and easy to work with.

Control panel scope

- 1 Bay Metering Panel
- 1 x Flow-X/C flow computer
- 1 x Keysight InfiniiVision 1000 X-Series Oscilloscope
- Proving of volume and mass-based flow meters



Flow computer



FMD-007 Small Volume Prover