

- B. The overall conversion accuracy measured from the RTU terminals shall be linear and better than 0.15% of full scale under operating conditions specified elsewhere in this specification.
- C. The analogue inputs shall be configurable to 4-20 mA dc.

1.3.23.7 Analogue Outputs

- A. The analogue outputs shall be 4-20 mA, 12-bit resolution. The integrity of loop signal shall be continuously monitored and if the loop impedance exceeds the drive capability, the fault shall be reported to the corresponding control centre.
- B. Each analogue output shall be capable of withstanding indefinitely short-circuiting or open circuiting, and provided with transient protection. Isolation between outputs and incoming power supply, and outputs and all other RTU interfaces shall be as for analogue inputs specified above.

1.3.23.8 Future Expansion

- A. It shall be possible to add any input/output type plug-in module with a geographical addressing facility.
- B. The system hardware, application software and database shall be sized to accommodate a total of 10% increase in signal capacity overall and up to 25% increase in an individual RTU.
- C. Sufficient plug in or add on modules shall be provided and wired to terminals ready to accept future signals of up to 25% or a minimum of one module, for each RTU.

1.3.23.9 RTU Software

- A. The RTU shall be capable of processing locally input equipment information before transmitting it to the master station to reduce transmission overheads.
- B. Total internal scan time interval for all inputs and outputs in an RTU shall not exceed 10 ms.
- C. The RTU shall operate on a report by exception basis. The report shall be triggered by change of state of digital values, analogues reaching threshold values or varying by specified amounts. The RTU shall also report when polled and when the memory buffer is full.
- D. The RTU's shall have sophisticated in built control facilities to permit control loop configuration using simple building blocks. These blocks shall sequence control,