6.2 Instrument Cabling

Field runs are classified as follows: -

Main Runs

Main runs are cables, (multicores, pairs or triads) that run between control room and field junction boxes, local panels or instruments.

Local Runs

Local runs are cables, (pairs or triads) that run between instruments and junction boxes or local panels.

6.2.1 Installation Methods

Cables run between the control room and the field junction boxes, local panels etc, shall be routed as per approved project drawings and specifications.

Multicore cables shall be terminated at suitably positioned junction boxes and connections to field instruments completed by individual cables routed overhead on cable ladder rack and/or cable tray.

Instrument cables shall be routed separately from electrical power and lighting cables. The physical separation of signal and power cables on parallel runs shall not be less than that shown below.

Minimum Separation – Instrument Cables and Power Cables

125V or 10A - 500mm

50V or 50A - 600mm

440V or 200A - 750mm

5kV or 500A - 1250mm

11/33kV or 800A - 2000mm

Cross overs that bring power and signal cables into close proximity shall be made at right angles, with a minimum separation distance of 300 mm.

The above may be relaxed on entries to instruments and panels.

Instrument cables carrying more than 10 Amps shall be treated as power cables.

All instrument cables may be combined in the same tray/ladder but cables of a particular category/functionality shall be bundled together such that the maximum separation can be achieved between high level signal wiring and low level signal wiring.