

- p. Operating temperature 0 to 50 degree centigrade
- q. Humidity up to 95% non condensing
- r. UL Listed
- s. CE marked

1.3.22.23 PLC System Documentation

- A. The following documentation shall be submitted to the engineer for approval prior to the application software development:
 - a. Functional Specification including PID and flow charts
 - b. I/O configuration drawing
 - c. Field Interface
 - d. Communication if any
 - e. Software Specification
- B. The following documentation shall be submitted to the engineer for approval after completion of software development, design and commissioning of the system.
 - a. Overview of the system software
 - b. Updated Software specification.
 - c. Full software listing with descriptive comments and synonymous.
 - d. A written description of the function of each section of the PLC programme.
- C. A full written description or listing of local and global variables, including all internal flags and calculation data areas with description of use.
- D. I/O and Communications configuration table, highlighting all switch or configuration settings for all processor modules, I/O modules, racks or base-plates, operator interfaces, printers etc.
- E. Operation and maintenance manual to include but not limited to PLC start-up, power failure, PLC systems failure, battery low, communication, field instruments etc.

1.3.22.24 Pre-installation tests

- A. All equipment shall be subjected to a pre-installation test.