

JTL INSTALLATION REQUIREMENTS

SINGLE PHASE UNBOXED MONITORS/INTERFACES

ELECTRICAL SAFETY

The interface/monitor must be mounted in an electrical panel provided with suitable isolation and correctly earthed. The printed circuit board must be mounted on spacers of minimum height 3/8" or 9 mm.

The power circuits connected to the interface should be suitably fused. A supply current fuse of 1 A is adequate. Output relay circuits are rated at 5 A continuous 230 V ac. Mains input current should not exceed 5 mA at 230 V ac.

The interface/monitor is suitable for single phase 230 V max operation. On no account should 3 phase, 415 V, connections be made to the unit.

EMC REQUIREMENTS

General

To be sure that the JTL products comply with the EMC requirements, the installation instructions supplied with the product must be adhered to.

Earth connection

Earth connections must be copper or aluminium to earth. Steel plates, trunking, armouring forming part of the earth system are not acceptable.

CABLE INSTALLATION REQUIREMENTS

When installing the boards into equipment it is essential that the following requirements are observed:

Cable Segregation

Connections are divided into two groups:

- (i) Power
- (ii) Network

It is essential that the cable connections to these groups be segregated.

Network Cables

Network signals must be run in multicore cable to minimise EMC problems.

Network cables should have a minimum insulation voltage of 250 V ac.

Network cables must have a minimum cross section of 0.2 mm and be flexible with a minimum of 7 strands.

Solid core cable is not permitted under any circumstances.

Network cables should NOT be run in trunking with power cables.

Power Cables

Flexible cables connected to JTL screw connectors should be bootlace ferruled with the correct ferrule using an appropriate crimp tool.

All ac outputs are suppressed internally. This is done by the use of a resistor/capacitor network connected from the LOAD to the neutral. It is ESSENTIAL that the outputs are wired correctly and that polarity is observed on all power connections as shown on individual wiring diagrams. If this polarity or correct wiring is not observed, data corruption or processor mis-operation may occur.

High Voltage Testing

No JTL interface/monitor should be connected in circuit during high voltage "flash" testing.

Cable Installation Within Equipment

Within the equipment separation must occur with a minimum of 150 mm between parallel runs of power and network cables. These must not be run in common trunking.

External Cables to Site Wiring

A minimum spacing of 350 mm must be maintained between parallel runs of power and network cables. These must not be run in common trunking.

Where separation of 350 mm is not possible the network cable should run in conduit or separate section steel trunking.

STATUTORY WIRING REGULATIONS

Installation should comply with the current statutory wiring regulations.

ADDITIONAL INFORMATION

Further information on installation requirements and cabling is available in the JTL Installation Practice Manual available on request.