

## **JTL INSTALLATION REQUIREMENTS**

**NETWORK RANGE:**

**DP3xx, PR2xx**

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### **ELECTRICAL SAFETY**

The power circuits connected to the controller should be suitable fused. A supply current fuse of 1A is adequate. Output relay circuits are rated at 4 A continuous 230 Vac. Input currents max 5 mA at 230 V.

The controller is suitable for single phase 230 V max operation. On no account should 3 phase 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 controllers into equipment it is essential that the following requirements are observed:

#### **Cable Segregation**

Connections are divided in to two groups:

- (i) Power
- (ii) Signal

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

#### **Signal Cables**

Low voltage signals should be run in multicore cable to minimise EMC problems and to avoid any confusion with power cables during installation or subsequently.

Signal cables should have a minimum insulation voltage of 250 Vac.

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

Telephone cable is not permitted under any circumstances.

No signal cable should be run in trunking with power cables.

## **Power and 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 on the controller. 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. Refet to tfe product connrction diagram.

As suppressors are internally connected to neutral it is ESSENTIAL that LINE (L) NEUTRAL (N) polarity is observed on all power connections.

If this polarity is not observed data corruption or processor mis-operation may occur.

## **High Voltage Testing**

No JTL controllers should be connected in circuit during high voltage "flash" testing.

## **Cable Installation Within Equipment**

Within the equipment separation must occur parallel runs of power and signal cables. These must not be run in common trunking. Ideally a separation of 150 mm should be achieved.

## **External Cables to Site Wiring**

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

Where separation of 350 mm is not possible the signal 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.