### **Electrical Installation Requirements**

Care should be taken to separate the power and signal cables to prevent electrical interference and possible damage due to inadvertent connection

#### **CE Conformance**

This unit conforms with the relevant EU standards when installed according to the JTL Installation Requirements for this product.

### Inputs Outputs (PR220 only)

Inputs connector

14 Input meter 2
13 Input meter 1
2-3 Pulse output 1
4-5 Pulse output 2

12 Common meter

#### **Use of Maintenance Unit**

The monitor can be checked and the operation adjusted using a JTL portable maintenance unit which plugs into the monitor. Each item of information has an item number. The more important items are listed in the tables overleaf.

Examples:

To read item 21 press: TIEM 2 1 ENTER

To set item 30 to 100.0 press:



To correct errors press:



To select next or previous items press:

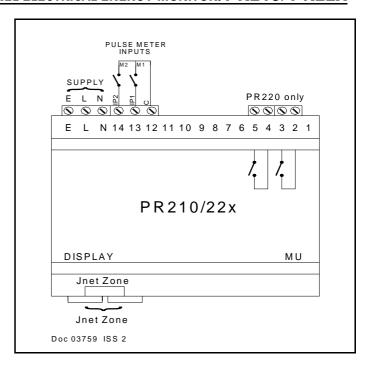


### **JTL Network Communications**

The JTL Jnet network is arranged for 2 wire (half duplex) communications. Jnet Network on this product use RJ8 connectors. JTL provide standard cables and junction boxes for the network connection.

Note all network products must be connected in parallel without cross connections. The Rx connections must be connected to the Tx connections at the network controller.

The communications rate is 4800 baud.



#### **Initial Commissioning**

The monitor has a set of data built in to its program for use during commissioning. This can be accessed setting item 9 to 1234. This loads into the monitor a standard set of data. Adjustments should then be made as necessary. The range over which the settings can be adjusted shown overleaf.

The unit numbers for the JTL communications network should be set on items 20 and 30.

## **Energy Meter Inputs**

Up to 2 meters can be connected to the monitor. The meters provide a volt free pulsed output which is connected to an input on the monitor. The scaling of the pulse input can be adjusted from 0.01 to 25.0 kWh for each channel on item 28 and 38.

The meter and the PR210/PR22x should match and be set to the smallest adjustable setting. This is ideally 0.01 kWh.

# Pulse outputs (PR220 only)

The pulse outputs repeat the energy meter inputs to allow connection to independent energy monitoring equipment.

ADJUSTABLE PARAMETERS					
	Item Numbers				
Meter 1	Meter 2	Function	Range	Units	
20 28	30 38	Unit numbers Input pulse	0.1 to 899.8 0.01 - 25.00	kWh	

OTHER USEFUL ITEMS					
Item Numbers					
Meter 1	Meter 2	Function	Units		
21 22 23 24 25 26 27	31 32 33 34 35 36	Average power over the last 15 mins Average power over the last hour Average power over the last 25 hours Total energy over the last 24 hours Current power (average over the last minute) Total energy lower digits (xxxx999.9) Total energy higher digits (9999xxx.x)	kW kW kW kWh kWh MWh		

Full operating manuals and item number information can be obtained from your supplier or JTL Systems.

## **Supply and Input Requirements**

230 V ac 48-62 Hz Supply 6 VA maximum Outputs 110V ac max 100ma max (PR220 only)

For 24V supply append -24V to part number.



This unit conforms with the relevant EU standards when fitted in accordance with its installation instructions.

### **Applicable Documentation**

Item Numbers Doc No. 03339 Firmware Variations Doc No. 03338 Connection Diagram Doc No. 03355 Connection Diagram Doc No: 03760 Installation Requirements Doc No. 03344 & 03371