

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.

The plant inputs are electrically isolated. A line voltage should be connected for signal present. The terminal marked **COM** should be connected to the supply voltage neutral.

CE Conformance

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

Inputs

- Inputs (connector 5)
- 1 Alarm Input
 - 3 Red Phase
 - 5 Yellow Phase
 - 7 Blue Phase
 - COM Neutral

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 41 press: **ITEM** **4** **1** **ENTER**

To set item 67 to 2 press: **ITEM** **6** **7** **ENTER** **SET** **2** **ENTER**

To correct errors press: **CANCEL**

To select next or previous items press: **+** and **-**

JTL Network Communications

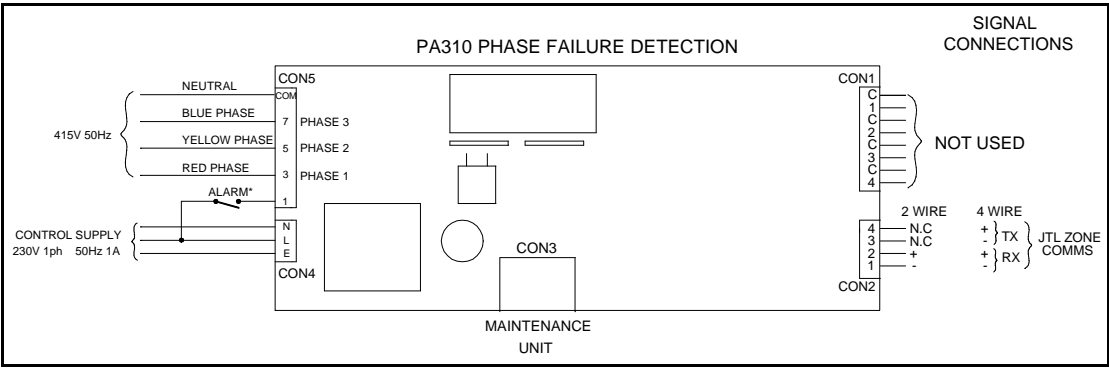
The JTL network port (connector 2) can be arranged for 2 wire (half duplex) or 4 wire (full duplex) communications. The wiring of the port is:

	2 wire	4 wire
1	-	Rx-
2	+	Rx+
3		Tx-
4		Tx+

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 choice of 2 or 4 wire is made using the item 7.

The communications rate is automatically selected for 4800 or 38400 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 number for the JTL communications network should be set on item 1.

Phase Failure Detection

The unit is connected to the 3 phases of the supply. To ensure the integrity of the data to the display terminals on the remote monitoring system, the red, yellow and blue phases must be connected to the correct inputs as listed above and shown on the drawings. If any of the 3 phases is missing then a phase failure alarm is given for the relevant phase.

Phase Rotation Error

The rotation of the phases is checked. The correct sequence is Red, Yellow, Blue. If the sequence is incorrect then a phase rotation alarm is given. The phase rotation is checked against the control supply phase for the PA310. This phase can be any of the 3 phases although conventionally it is the red phase. The actual phase used is programmed into the PA310 on item 67.

Plant Alarm

A plant alarm signal can be monitored using a delay time which is programmable using item 41. Alarms are cleared after a fixed 30 second delay.

The plant alarm input can be configured in 2 different ways.

- a) General purpose plant alarm
- b) High suction pressure alarm

The choice of operation is on item 65. The input status can also be inverted using item 66.

Item	Function	Range	Units
1	Unit number	0.1 to 899.9	hr:mn
7	JTL Network (half or duplex)	0=half (2 wire) 1=full (4 wire)	
41	Alarm delays	00:01 to 02:00	
65	Plant input choices	0=plant alarm 1=suction pressure fault	
66	Invert plant alarm inputs	0=no 1=yes	
67	Control phase selection	0=red 1=yellow 2=blue	

OTHER USEFUL ITEMS	
Item	Function
70	Input status
74	Phase rotation fault state
75	Suction pressure input fault
76	Plant alarm input fault state
81 - 83	Phase failure alarms
84	Phase rotation alarm
85	Suction pressure alarm
86	Plant fault alarm

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

Inputs 2 mA maximum



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

Note The information contained in this document applies to the current version of the unit supplied with it. Full operating manuals, item number and software variation information can be obtained from your supplier or JTL Systems.

Applicable Documentation

Item Numbers	Doc No. 02600
Software Variations	Doc No. 02601
Wiring Diagrams	Doc No. 02181, 02603
Evaporator Manual	Doc No. 01923
Installation Requirements	Doc No. 02752