The PA210 is a product which is used to replace the following obsolete JTL product:

**PA110**

The PA210 provides full functionality of the former product and includes some enhanced features.

## Mechanical
The PA210 is not physically able to replace the PA110 product without some rework. The PA210 is in an enclosure and the fixings are relocated.

## Electrical
Minor rewiring is necessary when replacing the PA110 with the PA210. The connector identification has been changed.

| CONNECTOR | PA210 | PA110 |
|---|---|---|
| SUPPLY | CON4 | CON2 |
| PLANT DATABUS | CON2 | CON4 |
| INPUTS | CON5 | CON3 |

### PA210 INPUT CONVERSION

| FUNCTION | PA210 (CON5) | PA110 (CON3) |
|---|---|---|
| COMMON | COM | COM |
| INPUT 1 | 1 | 1 |
| INPUT 2 | 2 | 2 |
| INPUT 3 | 3 | 3 |
| INPUT 4 | 4 | 4 |
| INPUT 5 | 5 | 5 |
| INPUT 6 | 6 | 6 |
| INPUT 7 | 7 | 7 |
| INPUT 8 | 8 | 8 |

## Network Connections
The main change between the PA110 and the PA210 is the network and network protocol. The PA110 resides on the obsolete 4 wire JTL plant zone that is only supported by the CU & CULG network controllers. The PA210 resides on the 2 wire JTL zones using the standard JTL Jnet protocol and is supported by all JTL network controller products.

The 4 wire plant zone connection must therefore be reconnected to a standard 2 wire port and the network reconfigured.

Providing the 4 wire cable connection is not being used for other PA110 units the cable may be reused for a 2 wire connection. However, if other PA110 units are using this zone connection they must be replaced OR new cabling installed.

|  | PA210 |  | PA110 |
|---|---|---|---|
|  | CON2 |  | CON1 |
| ! | 1 | ! IN | 1 |
| + | 2 | + IN | 2 |
| NC | 3 | ! OUT | 3 |
| NC | 4 | + OUT | 4 |

## Network Identification
On PA110 the rotary switch defines the network identification. The switch setting defines the position in the zone array which defines the unit number in the network controller directory. This data is programmed at commissioning.

On the PA210 the unit number follows usual JTL conventions and is programmed using the JTL maintenance unit on item 1.

It is therefore necessary when replacing the PA110 unit to contact the JTL service centre to reprogram the network controller with the new PA210 details. Providing the network controller is accessible using remote access tools this reprogramming can be done without a site visit being necessary.

## Input Function
The PA110 input functions are defined in the network controller at system commissioning. These are listed as types 81 - 98 on the appropriate connections diagrams.

In the PA210 the type number is defined in the unit itself by programming it using the JTL maintenance unit. This programming is done using item 30 (range 81 - 98).

## Maintenance Unit Connection
The MU connection on PA210 uses a 6 pin connector. It will be necessary to allow space for access to the socket. Connection via CON3.

| MAINTENANCE UNIT CONNECTION | PA210 | PA110 |
|---|---|---|
|  | CON3 | None |

## Documentation
Full documentation exists for the PA210 but if this is not available the PA110 documents may be used in conjunction with this information for the input functions.

## Interface Configuration
To ensure compatibility when replacing the original part with a PA210, action a factory default setting procedure (Item 9) before setting in the new data.

## Applicable Documentation
PA110 Connections Diagram
for current network controllers (CU)　　　Doc No. 00147

PA110 Connection Diagram
for legacy network controllers (CULG)　　Doc No. 03022

PA210 Connections Diagram Doc No. 01671

Note: For new designs the PA410 is the preferred choice for general purpose plant alarms.

PA210.wpd  Issue 1  Mar 2005  Doc No. 03163
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