

The IF14 is a product which is used to replace the following obsolete JTL product:

IF4, IF5, IF6

The IF14 provides full functionality of the former product and includes some enhanced features.

Mechanical

The IF14 is physically able to replace the IF4, IF5 or IF6 products without significant rework. The fixings are in the same place as the original IF fixings.

The rotary and configuration bitswitches have been removed in favour of electrical configuration using the JTL Maintenance Unit.

As the IF4, IF5 & IF6 did not require a maintenance unit, care should be taken to allow sufficient access to the MU socket

Electrical

Minor rewiring is necessary when replacing the IF4, IF5 or IF6 with the IF14. The connector identification has been changed.

IF14 INPUT CONVERSION

CONNECTOR	IF14	IF4, IF5, IF6
SUPPLY	CON1	CON2
PLANT DATABUS	CON2	CON1
INPUTS	CON7	CON3
OUTPUTS	CON8	CON4
ANALOGUE	CON9	Not Marked

Note: Relay 1 is a normally open relay and replicates the function of the changeover relay on the IF4, IF5 or IF6 daughter board. ie, it is energised when command from pack controller is non zero.

When replacing an IF4 or IF6 (4-20mA output) CON9 terminal labelled V+ is current source, Iout is current sink. When replacing IF5 (0-10V output), V out is voltage output with respect to GND terminal.

Maintenance Unit Connection

The MU connection on IF14 uses a 6 pin connector. It will be necessary to allow space for access to the socket. In the case where access is very restricted a short MU extension (CAB62) is available on request. Connection via CON6.

MAINTENANCE UNIT CONNECTION	IF14	IF1
	CON5/6	None

Documentation

Full documentation exists for the IF14 but if this is not available the IF4, IF5 or IF6 documents may be used in conjunction with this information.

Interface Configuration

To ensure compatibility when replacing the original part with an IF14, action a factory default setting procedure (Item 9) before setting in the new data.

The interface must be set up to enable analogue output, ie, Item 32 set to 2. Item 34 must then be set to 0 or 1 in the case replacing an IF4 or IF6 respectively. Switch 1 on SW2 must also be set on (all others off) when using current output. Item 34 must be set to 3 when replacing an IF5, however Switch 2 on SW2 must be set on (all others off) when using voltage output.

SW1 on IF14 is no longer used for backup when operating in analogue output mode. Instead, a value (0-99 in the case of IF14 and 0-127 in the case of IF5 and IF6) is programmed into item 35. This value is used to command the output in case of plant comms failure.

Item 30 value is the equivalent of the rotary switch setting (SW1). Eg, if the part to be replaced had the rotary switch set to 3, Item 30 on the IF14 should be set to 3.

Item 31 value is the equivalent of SW2 setting. See the table below for conversion.

FUNCTION	ITEM 31 (IF14)	SW2 (IF1) X = Don't care O = Open C = Closed
COMPRESSOR CONTROL	3	X C O O
CONDENSER CONTROL	4	X O C C

NB: in certain cases wire links may have been fitted in place of SW2. In this situation "no link" corresponds to switch "open" and "link fitted" corresponds to switch "closed".