




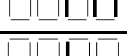
# JTL PLANT INTERFACE ITEM NUMBERS

# IF34/IF35 IF36

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JTL PLANT INTERFACE ITEM NUMBERS					IF34/IF35 IF36	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
<b>1. NETWORK IDENTIFICATION</b>						
*JTL plant protocol only (Item 37 = J.PL.1 or J.PL.2)						
0	Unit type	IF34/IF35/IF36	Unit type			
19	Firmware version number					
31	Channel 1 interface type * NOTE: Interface type must be configured according to intended function; (see user guide)	4	Condenser and defrost control		0 - 15	
		7	Compressor control with analogue output			
30	Channel 1 interface number * (see User Guide)	0	Condenser control (item 31=4)		0 - 254	
		1	Compressor boards			
	Modbus Device Address	1-254	Modbus address			
41	Channel 2 secondary interface type * (see User Guide)	4	Condenser and defrost control		0 - 15	
		7	Compressor control with analogue output			
40	Channel 2 secondary interface number * (see User Guide)	0	Condenser control (item 41=4)		0 - 9	
		1	Compressor boards			
<b>2. INTERFACE PARAMETERS</b>						
37	Communication protocol	0	upto v1.00.3 b.ASC	Modbus ASCII JTL plant zone - channel 1 only	upto v1.00.3 0 - 2	0
		1	J.PL.1			
		2	J.PL.2	Modbus RTU	v1.00.4 on	
		3	v1.00.4 on b.rtu		0 - 3	
34	Number of steps for 100% of output	99 - 127	Number of steps for 100% of output		99 - 127	99
36	Communication speed	1	v1.00.3 on 1.2	1200 baud 2400 baud 4800 baud 9600 baud 19200 baud	1 - 5	4
		2	2.4			
		3	4.8			
		4	9.6			
		5	19.2			

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<b>3. INPUTS &amp; OUTPUTS</b>						
Where segment patterns are shown, the vertical segments of the LCD display are used to represent visually the states of the inputs or outputs.						
Input/Output 1 is always on the right. Low segments mean deenergised high segments mean energised.						
*JTL plant protocol only (Item 37 = J.PL.1 or J.PL.2)						
32	Channel 1 analogue output backup	0 - 100	%		0 - 100	0
33	Channel 2 analogue output backup	0 - 100	%		0 - 100	0
35	Relay state during backup (modbus only)				0 - 15	
38	Channel 1 secondary relay switch off threshold *	0 - 100	% of full analogue output		0 - 100	0
39	Channel 1 secondary relay switch on threshold *	0 - 100	% of full analogue output		0 - 100	80
48	Channel 2 secondary relay switch off threshold *	0 - 100	% of full analogue output		0 - 100	0
49	Channel 2 secondary relay switch on threshold *	0 - 100	% of full analogue output		0 - 100	80
61	Outputs		v1.00.3 on			
		0		No relays energised		
		1		Relay 1 energised		
		2		Relay 2 energised		
		4		Relay 3 energised		
8		Relay 4 energised				
62	Inputs		v1.00.3 on			
		0		No inputs energised		
		1		Input 1 energised		
		2		Input 2 energised		
		4		Input 3 energised		
8		Input 4 energised				

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ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
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111	Channel 1 temperature (IF36 only)	-45.0 to +99.9	Temperature in degrees C			
121	Channel 2 temperature (IF36 only)	-45.0 to +99.9	Temperature in degrees C			
131	Channel 3 temperature (IF36 only)	-45.0 to +99.9	Temperature in degrees C			
141	Channel 4 temperature (IF36 only)	-45.0 to +99.9	Temperature in degrees C			
<b>4. RESTORE FACTORY DEFAULTS</b>						
9	Set default values	1234	Load default settings			
<b>5. DIAGNOSTIC &amp; TEST FUNCTIONS</b>						
<p>Forced functions remain forced if the Maintenance Unit remains plugged in. They are automatically cancelled 30 minutes after the Maintenance Unit is unplugged.</p> <p>Physical and logical inputs are normally the same except when inputs are forced. In this case the physical inputs report inputs that are physically present, and the logical inputs report the forced input value.</p> <p>Physical and logical outputs are normally the same except when outputs are forced. In this case the physical outputs report the outputs forced value (ie, which relays are actually turned on) and the logical outputs reports the unforced command state.</p> <p>Note: If more than one input or output is present the numbers in brackets are added and displayed instead.</p> <p>*JTL plant protocol only (Item 37 = J.PL.1 or J.PL.2)</p>						
100	Input status (Physical)	upto V1.00.5 (1)	Input 1 Input 2 Input 3 Input 4			
71	Input status (Logical)	(2) (4) (8)				
73	Relay output status (Physical)	upto V1.00.5 (1)	Output 1 Output 2 Output 3 Output 4			
72	Relay output status (Logical)	(2) (4) (8)				
100 71	Input status physical Input status logical	From V1.00.6 on Segment patterns as item 62				
73 72	Relay output status physical Relay output status logical	From V1.00.6 on Segment patterns as item 61				
101	Test relay outputs	0 1	Normal operation Test in progress		0 - 1	
81	Channel 1 command JTL Plant Zone Protocol * (received from plant controller)	0 - 127				
82	Channel 1 relay JTL Plant Zone Protocol * (sent to plant controller)	0 - 255				
83	Channel 2 command JTL Plant Zone Protocol * (received from plant controller)	0 - 127				
84	Channel 2 relay JTL Plant Zone Protocol * (sent to plant controller)	0 - 255				
78	Force inputs (See item 100)	0 1 - 15	Not forced Force inputs to read value		0 - 15	

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79	Force relay outputs (See item 73)	0 1 - 15 128	Not forced Force outputs to read value All outputs off		0 - 128	
10	Processor Alarms	0 32	No alarms NVRAM fault			
51	Channel 1 DAC data	0 - 4095	DAC raw value		upto v1.00.2 0 - 4095	
52	Channel 2 DAC data	0 - 4095	DAC raw value		upto v1.00.2 0 - 4095	
53	Channel 1 Analogue output (from V1.00.3 on)	0 - 100.0	% of full analiogue output		0 -100.0	
54	Channel 1 Analogue output (from V1.00.3 on)	0 - 100.0	% of full analiogue output		0 -100.0	
21	Channel 1 RAW ADC Value (IF36 only)	0 - 4095				
22	Channel 2 RAW ADC Value (IF36 only)	0 - 4095				
23	Channel 3 RAW ADC Value (IF36 only)	0 - 4095				
24	Channel 4 RAW ADC Value (IF36 only)	0 - 4095				