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JTL COMPRESSOR PACK ITEM NUMBERS

LP130

ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULTS	RANGE	ITEM 9 VALUE
1. Jnet NETWORK IDENTIFICATION						
0	Unit type	LP13	Unit type			
19	Software version number					
1	Unit number				0.1 - 899.9	
2. PRESSURE						
<p>Note: Pressures can be displayed on the maintenance unit in psi, bar or kPa. The choice is made on item 179. All setpoint ranges are shown in psi.</p> <p>Average pressures are averaged over last hour and are updated every 4 minutes.</p>						
179	Pressure display unit choice	1 2 3	PSI bAr PASC	p.s.i. bar kPa		1 - 3 PSI
21	Suction pressure					
146	Average suction pressure over 1 hour					
42	High suction pressure alarm level			0 1	10 to 50 25 to 80	20 80
41	Low suction pressure alarm level			0 1	-5 to 15 5 to +40	0 20
121	Pressure transducer selection	OFF S.t.En	Disabled Enabled		0 - 1	St.En
421	Full scale transducer value (at 20mA)				50 - 200	100.0
426	Zero scale transducer value (at 4mA)				-15 - 0	0.0
3. SUCTION PRESSURE CONTROL						
<p>If suction pressure optimisation is selected then the suction pressure setpoints as set in item 40 can be adjusted upwards to the maximum by a JTL optimisation unit connected to the network.</p> <p>If there is no JTL optimisation unit on the network then the setpoint remains at the original set value. In the event of network failure the setpoints revert to the original set value after a time delay of 15 minutes.</p>						
150	Select network optimised suction pressure control	OFF OPT.E	Not added Selected		0 - 1	OFF
40	Suction pressure setpoint			0 1 2	0 to 20 5 to 60 -10 to 20	8 35 -10
151	Optimised suction setpoint					
153	Optimised suction setpoint (HT Optimiser)					
152	Optimised suction setpoint upper limit			0 1	5 to 20 15 to 60	15 55
3.1 STEP CONTROL						
43	Suction pressure deadband				0 - 10	2
44	Suction pressure increase time constant			0, 1 2	1 - 60 1 - 10	30 1
45	Suction pressure decrease time constant			0, 1 2	1 - 60 1 - 10	15 1
48	Suction 1st stage hold on and fast unload setpoint			0 1 2	- 8 to +20 0 to 60 -12 to 20	0 10 -12

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ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULTS	RANGE	ITEM 9 VALUE	
195	Enable low suction pressure safety	OFF LP.En	Disabled Enabled		0 - 1	OFF	
196	Low suction pressure safety shutdown			0 1 2	-5 to 10 10 to 40 -12 to 10	0 20 -12	
191	Integrated pressure error						
181	Suction increase next step (kW)						
182	Suction decrease next step (kW)						
3.2 SPEED CONTROL							
347	Suction pressure error						
341	Minimum cut out pressure			0 1 2	- 8 to 20 0 to 40 -14 to 20	0 10 -12	
340	Time constant				1 - 240	30	
339	Speed gain				1 - 250	100	
345	Current proportional term						
346	Current Integral term						
4 COMPRESSOR CONTROL							
Forced functions remain forced if the Maintenance Unit remains plugged in. They are automatically cancelled 30 minutes after the Maintenance Unit is unplugged.							
4.1 COMMON DATA							
200	Number of compressors			0, 1 2	0 - 2 0 - 1	2 1	
201	Number of steps on load						
202	Number of compressors running						
203	Total capacity loaded (in kW)						
204	Forced number of suction stages				0 - 2		
208	Minimum compressor stop time (seconds)			0, 1 2	0 - 240 0 - 60	30 0	
206	Compressor fault alarm delay (mins)				0 - 10	0	
158	Compressor fault repeat alarm delay time	00:00	feature disabled		00:00 - 24:00	00:00	
4.2 STEP CONTROLLED COMPRESSOR DATA							
This controller controls up to 2 compressors. Compressor 1 can be a single step compressor or can be inverter controlled. Replace the x in the item numbers below with 1 for compressor 1 & 2 for compressor 2.							
2X5	Compressor isolation	0 1	ISOL OPER	Not in use In use		0 - 1 OPER	
2X3	Compressor status	rdy 0		Ready to run (no faults) Off or compressor interface fault			
2X6	Compressor capacity in <u>effective</u> kW				1 - 100	10	

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ITEM	DESCRIPTION	CODE		CODE MEANING	FACTORY DEFAULTS	RANGE	ITEM 9 VALUE
2X0	Compressor loading method	0 1 2	none 1.StP i.con	not controlled 1 step Inverter controlled		0 - 2	1.StP
2X1	Number of steps on load						
2X8	Force compressor off	CP.En C.OFF		Compressor enabled to run Forced off		0 - 1	
2X7	Forced number of compressor steps					0 - 4	
2X2	Total running hours (in 10s of hours)					0 - 9999	
37X	Compressor run time last 24 hours						
2X4	Compressor restart inhibit timer (Seconds)						
2X9	Compressor number of starts per hour Setting this to 0 disables starts per hour function.				0, 1 2	4 - 20 0 - 20	10 0
35X	Average number of starts per hour last 24 hours						
4.3 SPEED CONTROLLED COMPRESSOR DATA Compressor 1 can be speed controlled using an inverter. This requires item 210 to be set to inverter control.							
330	Select inverter control	In.1S		Inverter selected			
344	Inverter capacity loaded in effective kW						
331	Number of steps on load	0 127		Off Maximum			
332	Inverter run hours (in 10's of hours)					0 - 9999	
333	Inverter status	rdy c.hty i.hty 0		ready to run (Inverter & compressor healthy) Inverter compressor healthy Inverter healthy not ready to run			
343	Minimum steps allowed					1 - 63	1
342	Maximum steps allowed					64 - 127	127
335	Inverter capacity at minimum speed in effective kW					1 - 100	5
336	Inverter capacity at maximum speed in effective kW					1 - 100	10
337	Forced no. of steps					0 - 127	
338	Force inverter off	CP.En C.OFF		Enabled to run Inverter forced off		0 - 1	

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ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULTS	RANGE	ITEM 9 VALUE	
5. INPUTS AND OUTPUTS							
20	Operating mode	oFF Auto	Manual Automatic				
171	compressor 1 ok (IP-1)	1.Hty Cl.FT	Healthy Fault				
172	Compressor 2 ok (IP-2)	2.Hty C2.Ft	Healthy Fault				
173	Plant ok (IP-3)	P.Hty PL.ft	Healthy Fault				
174	Auto/manual (IP-4)	OFF Auto	Manual (pack controller dormant) Auto mode				
175	Inverter ok (IP-1)	I.Hty InFt	Healthy Fault				
161	Run compressor 1 (LN/LD-1)	OFF run.1	off Run compressor 1				
162	Run compressor 2 (LN/LD-2)	OFF run.2	off Run compressor 2				
163	Watchdog output (LN/LD-3)	OFF On	Watchdog fail Watchdog healthy				
164	High suction pressure (LN/LD-4)	clr Hi.SP	Off High pressure				
165	Run inverter (LN/LD-1)	OFF run	off Run inverter				
6. DISPLAY FUNCTIONS							
179	Pressure display unit choice	1 2 3	PSI bAr PASC	p.s.i. bar kPa	1 - 3	PSI	
7. CLOCK CALENDAR							
Note, the time and date can be displayed as standard or daylight saving (summer) time. This choice is made on item 18. When daylight saving is chosen and the controller is connected to a JTL Network Controller supporting daylight saving operation, the change is made automatically to the current EU directive.							
2	Time of day				00:00 - 23:59		
3	Day of week	Sun - Sat	0 = Sunday 1 = Monday etc				
4	Date				01:01 - 31:12		
5	Year				2004 - 2034		
18	Daylight saving enable	Stnd dAY.S	Standard time Daylight saving time		0 - 1	Stnd	

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ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULTS	RANGE	ITEM 9 VALUE
8. RESTORE FACTORY DEFAULTS						
To set the factory defaults into the memory of the controller, first set the bitswitches as shown, then set item 9 to the set default value of "1234". This should be done on initial commissioning of the unit or when the unit is being installed as a replacement part.						
966	Virtual bitswitch setting (from version 0.00.1)	0 1 2	Lt compressor Ht compressor Extra low pressure range			
9	Set default values selected by Bitswitch	1234	Set default values			
	Note: Setting the bitswitches alone has no effect. Note prior to v0.00.1 defaults were to LT settings only.	1066	Write to NVRAM without delay			
9. RESTORE PARAMETERS FROM NETWORK (from v0.00.1)						
To restore the data from the network first set the virtual bitswitch on item 966 and the appropriate unit number on item 1. Then check item 965 to see if this facility is available on the network. The information on item 965 is received from a network broadcast every few minutes. If the restore parameter facility is available and operational then item 965 will be set to a non zero number e.g. 2. To request restore parameters set item 964 to 1234. Item 963 displays parameters restore progress. When all parameters are downloaded item 964 is cleared to 0.						
965	Master database port	0 1 - 4	Not in use NC port no			
964	Set restore parameters from network	1234	Request restore			
963	Parameter restore progress	rdy nl.r din.p dnl.c FAIL	Restore function possible Restore requested Restore in progress Restore complete Restore fault			
959	Requested template	0 1-9999	As commissioned Template number		0 - 9999	
10. SYSTEM ALARMS						
80	Group alarm 81 - 88	0 1 - 255	No alarms Check 81 - 88			
81	Low suction pressure	CLr Lo.SP	No fault Fault			
82	High suction pressure	CLr Hi.SP	No fault Fault			
90	Group alarm 91 - 98	0 1 - 255	No alarms Check 91 - 98			
91	Pressure transducer fault	CLr Pt.Ft	No fault Fault			
92	Temperature sensor	CLr tS.Ft	No fault Fault			
97	Compressor fault	CLr CPr.F	No fault Fault			
98	Compressor inverter fault	CLr InL.F	No fault Fault			

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ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULTS	RANGE	ITEM 9 VALUE
11. DIAGNOSTIC & TEST FUNCTIONS						
6	JTL Network communications speed	4.8	Kilo Baud			
7	Communications method	HALF	2 wire			
967	Latest unit no polled on zone					
973	Latest polling interval This time shows the polling interval between the last two successful network awake messages to this unit.	min:sec				
974	Time since last awake message	min:sec				
975	Network receive timer Each time a message is read correctly the timer is set to 10 it counts down. If the timer reaches 0 then the communications module is reset.	seconds	(counts down to 0)			
976	Network receive bad character counter. The counter counts down from a preset number. When the counter reaches 0 the communications module is reset.		(counts down to 0)			
977	Transmit control line status for the operation of the Jnet network communications.	Hi Lo	Transmit Receive			
8	Bitswitch settings (from v0.00.1)	Lt Ht E.Lo.P	LT Compressor HT Compressor Extra low pressure			
99	Test digital displays	CLr SEt	Not active Test active		0 - 1	
100	Test inputs	- - - - 1 - - - - 2 - -	No inputs Input 1 on Input 2 on			
199	Test relay outputs	clr SEt	Not active Active		0 - 1	
10	Processor alarms (11 - 17)	0 1 - 255	No alarms Check 11 - 17			
11	Static RAM fault	CLr rA.Ft	No fault Fault			
12	Program/counter fault	CLr PC.Ft	No fault Fault			
13	Stack pointer fault	CLr SP.Ft	No fault Fault			
14	Background loop fault	CLr bL.Ft	No fault Fault			
15	PROM checksum fault	CLr Pr.Ft	No fault Fault			
16	NVRAM fault	CLr n.Ft	No fault Fault			
17	Instruction TRAP fault	CLr tP.Ft	No fault Fault			

DISPLAY DATA		LP130
NORMAL DISPLAY		
999.9	Pressure in psi	
--	Not selected	
ALARM TEXT (in descending priority order)		
P.Fld	Plant failed	
CPr	Compressor fault	
Hi.SP	High suction pressure	
OTHER TEXT		
JTL	Start-up text	