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| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | |
|--|---|--------------|--|--------------------------------------|--------------------------------------|---------------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE |
| 1. Jnet NETWORK IDENTIFICATION | | | | | | |
| 0 | Unit type | LACI | Unit type | | | |
| 19 | Software Version number | | | | | |
| 1 | Unit number | | | | 0.1 - 899.8 | |
| 2. TEMPERATURES | | | | | | |
| Note: The temperatures can be displayed on the maintenance unit in degrees Celsius or Fahrenheit. The choice is made on item 122. All setpoint ranges in this document are shown in celsius. | | | | | | |
| 20 | Coldroom temperature | | | | | |
| 21 | Air on temperature | | | | | |
| 36 | Air on sensor selection | OFF AO.En | Disabled Enabled | | 0 - 1 | AO.En |
| 22 | Air off temperature | | | | | |
| 37 | Air off sensor selection | OFF AF.En | Disabled Enabled | | 0 - 1 | AF.En |
| 23 | Evaporator temperature | | | | | |
| 38 | Evaporator sensor selection | OFF EP.En | Disabled Enabled | | 0 - 1 | EP.En |
| 24 | Suction line temperature | | | | | |
| 39 | Suction line sensor selection | OFF SP.En | Disabled Enabled | | 0 - 1 | SP.En |
| 25 | Superheat (Evaporator temp - suction line temp) | | | | | |
| 141 | Termination sensor temperature | | | | | |
| 147 | Termination sensor selection | OFF tS.En | | | 0 - 1 | OFF |
| 247 | Site temperature (from broadcast) | | | | | |
| 248 | Site humidity (from broadcast) | | | | | |
| 122 | Temperature display unit choice | CELS FAhr | Celsius Fahrenheit | | 0 - 1 | CELS |
| 3. TEMPERATURE ALARMS | | | | | | |
| 127 | High temperature alarm inhibited selection | OFF A.inh | Alarms enabled always Alarms inhibited during defrost | | 0 - 1 | OFF |
| 26 | Average coldstore temperature error | | | | | |
| 32 | Coldstore overtemperature alarm tolerance | 0.0 | Disable Ht alarm | 0 (CC) 1 (CO) 2 (OC) 3 (OO) | 0 - 20 0 - 20 0 - 20 0 - 20 | 10 10 5 10 |
| 47 | Period over which averages are taken | | | | 00:30 - 03:00 | 02:00 |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | |
|---------------------------------------|---|-------------|---------------------------------------|--------------------------------------|--|-------------------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE |
| 4. TEMPERATURE CONTROL | | | | | | |
| 67 | Isolate coldroom | run ISOL | Normal operation Coldroom isolated | | 0 - 1 | run |
| 275 | Control temperature (from v0.00.3 on) Note: upto v0.00.2 control is on air off | 0 1 | A.off Cr.t | Air off Coldroom | | 0 - 1 Cr.t |
| 30 | Coldstore temperature setpoint (target for item 21) | | | 0 (CC) 1 (CO) 2 (OC) 3 (OO) | - 30 to -12 - 30 to -12 - 5 to +25 - 5 to +25 | - 20 - 26 0 +4 |
| 28 | Current Air off temperature setpoint (calculated by controller) | | | | | |
| 29 | Current Evaporator temperature setpoint (calculated by controller) | | | | | |
| 240 | Liquid line valve open percentage for last sample period | | | | | |
| 241 | Average liquid line valve open percentage over data logging interval period | | | | | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | | LACI | |
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| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE | |
| 5. ELECTRONIC EXPANSION VALVE CONTROL | | | | | | | |
| Note: Pressures can be displayed on the maintenance unit in psi, bar or kPa. The choice is made on item 179. All setpoint ranges in this document are shown in psi. (Note: for electronic expansion valve [PEV] control, item 160 must be set on) | | | | | | | |
| 5.1 OPERATIONAL SUPERHEAT | | | | | | | |
| 161 | Superheat measurement method | 1 2 | 2t Pt1 | 2 temperature Pressure transducer | | 1 - 2 | Pt1 |
| 156 | Operational Superheat (determined by strategy set on item 161) | | | | | | |
| 152 | Suction line temperature | | | | | | |
| 151 | Evaporator temperature | | | | | | |
| 155 | Suction pressure (guage) | | | | | | |
| 158 | Pressure transducer zero offset | up to v0.00.9 | | | | | |
| | | | | | | -10.0 to +10.0 | 0.0 |
| | | from v0.01.0 | | | | | |
| | | 0, 1 (Cx) 2, 3 (Ox) | | | | -20.0 to +20.0 -10.0 to +10.0 | 0.0 |
| 159 | Auto zero pressure transducer offset | | | | | | |
| 175 | Pressure transducer type (v0.00.1 on) | 3 4 | 07 34 | PTXV07 PTXV34 | 0 (CC) 1 (CO) 2, 3 (Ox) | 3 - 4 3 - 4 3 only | 34 07 07 |
| 177 | Pressure transducer calibration method Note: Auto zero adjustment is shown on item 159. Network zero adjustment is shown on item 206. | 0 1 2 | nonE A.Pt.O nEt.A | None Auto zero Network adjustment | | 0 - 2 | nonE |
| 178 | Rate of fall of superheat to trigger auto zero sequence (°C/min) | | | | | 1.0 - 10.00 | 3.0 |
| 179 | Pressure display unit choice | 0 1 2 3 | nonE PSI bAr PASC | Not selectable (kPa) p.s.i. bar kPa | | 0 - 3 | PSI |
| 157 | Refrigerant type | up to v0.01.0 | | | | | |
| | | 0, 1 (Cx) | | | | 3 - 9 | 744 |
| | | 2, 3 (Ox) | | | | 3 - 7 | 407A |
| | | from v0.01.0 | | | | | |
| | | 0 (CC) | | | | 1 - 9 | 744 |
| | | 1 (CO) | | | | 1 - 9 | 407A |
| | | 2, 3 (Ox) | | | | 1 - 7 | 407A |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | | |
|---|--|---------------------|--------------------------------------|------------------------|------------|--------------|------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE | |
| 5.2 Jnet NETWORK AUTOMATIC PRESSURE TRANSDUCER CALIBRATION | | | | | | | |
| 204 | Unadjusted suction pressure | | | | | | |
| 205 | Jnet network zero adjustment status | FroZ LivE | Adjustment frozen Adjustment live | | | | |
| 206 | Jnet network zero adjustment | | | | | | |
| 207 | Average suction pressure over last hour at evaporator (defrosts are discounted) | | | | | | |
| 208 | Average suction pressure from plant via network | | | | | | |
| 209 | Suction line pressure drop | | | 0, 1 (Cx) 2, 3 (Ox) | 0.0 - 10.0 | 4.0 6.0 | |
| 154 | Force average pressure to current pressure | CLr F.Av.P | Off Force pressure | | | | |
| 5.3 ELECTRONIC EXPANSION VALVE CONTROL DATA | | | | | | | |
| 188 | Superheat control strategy | up to v0.00.2 | | | | | |
| | | 0 | OFF | SUCCEEDS (Floating) | | 0 - 1 | succ |
| | | 1 | En.SL | Enable upper limit | | | |
| | | from v0.00.3 | | | | | |
| 0 | Succ | SUCCEEDS (Floating) | 0, 1 (Cx) | 0 - 2 | Succ | | |
| 1 | Suc.L | Enable upper limit | | | | | |
| 2 | F-SH | Fixed superheat | 2, 3 (Ox) | 0 - 2 | F-SH | | |
| 189 | Superheat setpoint (for fixed and upper limit depending on item 188) | upto v0.00.9 | | | | | |
| | | 4 - 8 | 6 | | | | |
| | | from v0.01.0 | | | | | |
| | | 4 - 12 | 6 | | | | |
| 140 | Temperature deadband (v0.00.3 on) Note: for use with fixed and limited superheat strategies | | | | 0.4 - 3.0 | 0.4 | |
| 278 | Temperature control error (v0.00.9 on) | | | | | | |
| 168 | Current opening % (PI x modifier) OR override) | | | | | | |
| 172 | PI output (before modification) | | | | | | |
| 277 | Proportional output (v0.00.5 on) | | | | | | |
| 276 | Integral output (v0.00.4) | | | | | | |
| 170 | Valve control gain (proportional term) | upto v0.00.3 | | | | | |
| | | 1 - 100 | 20 | | | | |
| | | from v0.00.4 | | | | | |
| 0 - 100 | 20 | | | | | | |
| 171 | Valve control time constant (integral term) | 0 1 - 250 | Integral disabled Time constant | | 0 - 250 | 25 | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | |
|--|--|--------------|----------------------|------------------------|--------------------|--------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE |
| 162 | Minimum Superheat for control strategy | | | | 0 - 10.0 | 6.0 |
| 186 | Minimum superheat for 2 temperature control | | | 0, 1 (Cx) 2, 3 (Ox) | 0 - 5.0 0 - 5.0 | 4.0 3.0 |
| 163 | Maximum Valve opening % (PI) | | | | 10 - 100 | 100 |
| 164 | Minimum Valve opening % (PI) for pressure control strategy | | | | 0 - 50 | 0 |
| 187 | Minimum valve opening % for 2 temperature control | | | 0, 1 (Cx) 2, 3 (Ox) | 5 - 50 5 - 50 | 5 10 |
| 166 | Forced valve opening % | | | | 0 - 100 | |
| 167 | Force valve shut | OFF F.Sht | Off Forced shut | | 0 - 1 | |
| 169 | Current valve status | OFF PE.on | Off On | | | |
| 173 | Maximum time at minimum output | 00:00 | Not used | | 00:00 - 00:10 | 00:05 |
| 174 | High suction pressure shutdown selection | OFF Hp.on | Disabled Enabled | | 0 - 1 | HP.on |
| 5.4 ELECTRONIC EXPANSION VALVE LOW SUPERHEAT STATE DETECTION DATA | | | | | | |
| 180 | Low superheat status | OFF Or.on | Off Low superheat | | | |
| 181 | Time since last low superheat state (in hr:mn) | | | | | |
| 182 | Duration of last low superheat state (in secs) | | | | | |
| 183 | Duration of current low superheat state (in secs) | | | | | |
| 184 | Accumulated low superheat state time (in secs) | | | | | |
| 243 | PREDICT low superheat state current average (%) | | | | | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | |
|---|---|---|--|-----------------|---------------|--------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE |
| 5.5 ELECTRONIC EXPANSION VALVE AUTOMATIC CONTROL MODIFICATION DATA | | | | | | |
| 185 | Time since output last modified by low superheat state (in hr:mn) | | | | | |
| 194 | Average temperature error over past 5 mins | | | | | |
| 190 | Modifier value (%) | | | | | |
| 191 | Modifier error gain | | | 0, 1 (Cx) | 1 - 100 | 10 |
| | | | | 2, 3 (Ox) | 1 - 100 | 20 |
| 192 | Modifier error adjustment upper limit (%) | | | | 1 - 25 | 10 |
| 193 | Time temperature above setpoint before modifier increased | | | | 00:01 - 00:20 | 00:02 |
| 195 | Modifier increase time constant | | | | 1 - 100 | 10 |
| 196 | Modifier integral term output | | | | | |
| 6. INPUTS & OUTPUTS | | | | | | |
| 70 | Operating mode | rEFr dEFr dF.rc dr.dn Li.Ho Pu.dn Sh.dn | Refrigeration Defrost Defrost recovery Drain down Liquid hold off Pump down Shutdown | | | |
| 273 | Enable input IP1 to override PEV control | OFF En.PO | Off Enable PEV override | | 0 - 1 | En.PO |
| 274 | PEV override input state (input 1) | OFF P.O.On | Off PEV override on | | | |
| 139 | Input 2 state (input 2) (v0.00.8 on) | OFF trAP door | No input Man trapped door open | | | |
| 138 | Input 2 function selection (v0.01.1 on) | 3 4 | tr.iP door Man trapped input Door input | | 3 - 4 | tr.iP |
| 72 | Defrost relay (function depends on item 75) | oFF dc.on | Relay deenergised Defrost control on | | | 274 |
| 74 | Auxiliary heater and fan relays (RL1 & RL2) | oFF Fn.on Hr.on Both | Off Fans on Heater on Both on | | | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | |
|---|---|---|--|--|-------|--------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE |
| 7. SUCTION PRESSURE OPTIMISATION | | | | | | |
| 200 | Disable suction pressure optimisation for this unit | En.SO di.SO | Enable Disable | | 0 - 1 | En.SO |
| 201 | Exclude evaporator from suction pressure optimisation (Data to network) | OFF in.SO | Off Inhibit from suction optimisation | | | |
| 203 | Related suction line from plant controls (Data from network) | nonE Lt Ht SAT | Not selected Low temperature High temperature Satellite | | | |
| 202 | Raw network data for optimiser from plant (Binary data interpreted on item 203) | | | | | |
| 211 | Evaporator suction group - Required by Mark 2 optimisers (Data to network) | 0 1 2 3 | nonE Lt Ht SAT | Not selected Low temperature High temperature Satellite | 0 - 3 | nonE |
| 212 | Operating mode | rEFr dEFr dF.rc dr.dn Li.Ho Pu.dn Sh.dn | Refrigeration Defrost Defrost recovery Frain down Liquid hold off Pump down Shutdown | | | |
| 217 | Plant data to network (binary value interpreted on item 211) | | | | | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | |
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| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE |
| 8. DEFROST CONTROL | | | | | | |
| 8.1 DATA & STRATEGIES | | | | | | |
| 40 | Duration of last defrost | | | | | |
| 41 | Time since end of last defrost | | | | | |
| 42 | Duration of current defrost | | | | | |
| 411 (107) | Defrost strategy | 0 1 2 3 4 5 6 7 8 9 | nonE nonE n.i.L.b rt.in Prdt n.i.F.b c.d.L.b c.d.F.b | None Not used Network initiated (learned backup) Internal clock initiated Not used PREDICT initiated Not used Network initiated (fixed schedule backup) Co-ordinated defrost (learned backup) Co-ordinated defrost (fixed schedule backup) | | 0 - 9 0 |
| 412 | Current defrost initiation strategy in operation | nonE JnEt rt.in | None Jnet network initiated Internal clock initiated | | | |
| 219 | Jnet network defrost arrangement | nonE cord dEF.S PrEd | None Defrost co-ordinator present on network Timed defrost scheduler present on network Predict co-ordinator present on network | | | |
| 69 | No of defrosts per day (Note, when the defrost strategy is set to PREDICT operation, this item is not used. When coordinated defrost is in operation this item sets the number of defrosts a day that are required). | 0 1 - 6 | Function disabled No of defrosts | | 0 - 6 | 3 |
| 61 | Pump down time | | | | 00:00 - 00:10 | 00:00 |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | | LACI | |
|---|---|------------------------|---|---------------------------------------|--|----------------------------------|--|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE | |
| 8.2 REAL TIME INITIATED DEFROST TIMES | | | | | | | |
| When a 12 hour schedule is selected (item 60) the defrosts repeat on a 12 hour cycle ie., if 08:00 is selected then a 2nd defrost occurs at 20:00 (and vice versa) | | | | | | | |
| Daylight saving operation. Time and defrost schedule can be automatically displayed as standard time or daylight saving (summer) time if desired. When daylight saving is operational the displayed schedule is automatically adjusted so that defrost still occur at the same "standard time". | | | | | | | |
| 51 | Defrost time 1 | 00:00 00:01 - 23:59 | Defrost disabled Defrost enabled | 0 (CC) 1 (CO) 2 (OC) 3 (OO) | 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 | 01:00 02:00 03:00 04:00 | |
| 351 | Defrost method for defrost time 1 (from v0.01.1) | 0 1 | E.dEF oFF.C | Electric defrost Off cycle defrost | | 0 - 1 E.dEF | |
| 52 | Defrost time 2 | 00:00 00:01 - 23:59 | Defrost disabled Defrost enabled | 0 (CC) 1 (CO) 2 (OC) 3 (OO) | 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 | 07:00 08:00 09:00 10:00 | |
| 352 | Defrost method for defrost time 2 (from v0.01.1) | 0 1 | E.dEF oFF.C | Electric defrost Off cycle defrost | | 0 - 1 E.dEF | |
| 53 | Defrost time 3 | 00:00 00:01 - 23:59 | Defrost disabled Defrost enabled | 0 (CC) 1 (CO) 2 (OC) 3 (OC) | 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 | 13:00 14:00 15:00 16:00 | |
| 353 | Defrost method for defrost time 3 (from v0.01.1) | 0 1 | E.dEF oFF.C | Electric defrost Off cycle defrost | | 0 - 1 E.dEF | |
| 54 | Defrost time 4 | 00:00 00:01 - 23:59 | Defrost disabled Defrost enabled | 0 (CC) 1 (CO) 2 (CO) 3 (OO) | 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 00:00 - 23:59 | 19:00 20:00 21:00 22:00 | |
| 354 | Defrost method for defrost time 4 (from v0.01.1) | 0 1 | E.dEF oFF.C | Electric defrost Off cycle defrost | | 0 - 1 E.dEF | |
| 55 | Defrost time 5 | 00:00 00:01 - 23:59 | Defrost disabled Defrost enabled | | 00:00 - 23:59 | 00:00 | |
| 355 | Defrost method for defrost time 5 (from v0.01.1) | 0 1 | E.dEF oFF.C | Electric defrost Off cycle defrost | | 0 - 1 E.dEF | |
| 56 | Defrost time 6 | 00:00 00:01 - 23:59 | Defrost disabled Defrost enabled | | 00:00 - 23:59 | 00:00 | |
| 356 | Defrost method for defrost time 6 (from v0.01.1) | 0 1 | E.dEF oFF.C | Electric defrost Off cycle defrost | | 0 - 1 E.dEF | |
| 60 | Defrost schedule selection | 24 hr 12 hr | 24 hour schedule 12 hour schedule | | 0 - 1 | 24 hr | |
| 43 | Time next defrost is due | | | | | | |
| 8.3 Jnet NETWORK INITIATED DEFROST | | | | | | | |
| 46 (215) | Jnet Network initiated defrost command status | P.dEF F.dEF nonE | Defrost Forced defrost No command | | | | |
| 261 to 272 | Defrost schedule (12 times starting at item 261 through to 272) | | | | | | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | | |
|---|---|---|--|---|--------|---|------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE | |
| 8.4 COORDINATED DEFROST INITIATION | | | | | | | |
| This information is for use by defrost schedulers and for PREDICT defrost (8.5) | | | | | | | |
| 69 | No of defrosts required per day (Note, when the defrost strategy is set to PREDICT operation, this item is not used. When coordinated defrost is in operation this item sets the number of defrosts a day that are required.) | 0 1 - 12 | Function disabled No of defrosts | | 0 - 12 | 3 | |
| 224 | Time since the start of last defrost | | | | | | |
| 216 | Defrost requirement to defrost coordinator | | | | | | |
| 223 | Defrost requirement priority | | | | 1 - 8 | 1 | |
| 211 | Evaporator suction group | 0 1 2 3 | nonE Lt Ht SAT | Not selected Low temperature High temperature Satellite | | 0 - 3 nonE | |
| 214 (414) | Defrost heater choice | 0 1 2 3 4 5 6 | brn or rEd blac or YELL GrEY or bluE 3 - Ph oFF.C | Electric brown phase Electric black phase Electric Grey phase Electric 3 phase Not used Not used Off cycle | | 0 - 6 rEd | |
| 213 | Electric circuit choice (depends on item 214) | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 | cct1 cct2 cct3 cct4 cct5 cct6 cct7 cct8 cct9 cc10 cc11 cc12 cc13 cc14 cc15 cc16 cc17 cc18 cc19 cc20 cc21 cc22 cc23 cc24 cc25 cc26 cc27 cc28 cc29 cc30 cc31 | Circuit 1 Circuit 2 Circuit 3 Circuit 4 Circuit 5 Circuit 6 Circuit 7 Circuit 8 Circuit 9 Circuit 10 Circuit 11 Circuit 12 Circuit 13 Circuit 14 Circuit 15 Circuit 16 Circuit 17 Circuit 18 Circuit 19 Circuit 20 Circuit 21 Circuit 22 Circuit 23 Circuit 24 Circuit 25 Circuit 26 Circuit 27 Circuit 28 Circuit 29 Circuit 30 Circuit 31 | | to v0.01.0 1 - 7 v0.01.1 on 1 - 15 V0.01.4 on 1 - 31 | cct1 |
| 210 | Electrical distribution Panel No. (from v0.01.1) | | | | 0 - 7 | 0.0 | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | |
|--|---|------------------------|--|-----------------|------------|--------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE |
| 215 (46) | Jnet network initiated defrost command status | P.dEF F.dEF nonE | Defrost Forced defrost No command | | | |
| 217 | Evaporator data to plant | | | | | |
| 220 | Defrost coordinator status | oFF cord | No defrost coordinator Defrost coordinator present on network | | | |
| 8.5 JTL PREDICT DEFROST INITIATION See also information in 8.4 | | | | | | |
| 225 | Minimum time between defrosts (hours) | | | | 2 - 8 | 6 |
| 226 | Maximum time between defrosts (hours) | | | | 6 - 72 | 24 |
| 8.5.1 PREDICT 1 OPERATION PREDICT 1 operation is associated with SUCCEEDS superheat control as set on Item 188 | | | | | | |
| 242 | PREDICT 1 low superheat state initiation level (%) | | | | 0 - 100 | 25 |
| 243 | PREDICT 1 low superheat state current average (%) | | | | | |
| 8.5.2 PREDICT 3 OPERATION (From v0.01.5) PREDICT 3 operation is associated with fixed superheat control as set on Item 188 | | | | | | |
| 227 | Number of samples to discard from top & bottom of sorted list | | | | 0 - 3 | 1 |
| 228 | PREDICT 3 volatility integral setpoint | | | | 2.0 - 12.0 | 6.0 |
| 229 | PREDICT 3 volatility integral | | | | | |
| 230 | Current PREDICT 3 volatility | | | | | |
| 231 | Long run PREDICT 3 volatility | | | | | |
| 232 | Ratio of current PREDICT 3 volatility/long run volatility | | | | | |
| 233 | Mean value from PREDICT 3 sampling array | | | | | |
| 234 | Minimum value from PREDICT 3 sampling array | | | | | |
| 235 | Maximum value from PREDICT 3 sampling array | | | | | |
| 236 | Average reading in last complete PREDICT 3 sample (frame) | | | | | |
| 237 | Latest reading | | | | | |
| 281 to 296 | Array of superheat readings in current samples (frame) | | | | | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | | |
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| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE | |
| 301 to 316 | Array of average reading samples (frames) | | | | | | |
| 321 to 336 | Sorted array of average reading samples (frames) | | | | | | |
| 8.6 DEFROST TERMINATION | | | | | | | |
| 144 (413) | Termination method selection | 1 | EuAP | Evaporator sensor | 0, 1 (CX) | 1 - 4 | EuAP |
| | | 2 3 4 | A.OFF tEr tot | Air off sensor Termination sensor Time only | 2 (OC) 3 (OO) | 1 - 4 | tot |
| 141 | Termination sensor temperature | | | | | | |
| 147 | Termination sensor selection | OFF tS.En | Disabled Enabled | | 0 - 1 | OFF | |
| 50 | Defrost termination temperature (the sensor used is available on item 144) | | | 0 (CC) 1 (CO) 2 (OC) 3 (OO) | 0 - 30 0 - 30 0 - 30 0 - 30 | 20 20 15 20 | |
| 145 | Minimum defrost duration (Defrost heater cycles on termination temperature (item 50) as required during this time) | | | | 00:00 - 00:30 | 00:10 | |
| 57 | Maximum defrost duration | | | 0, 1 (Cx) | 00:05 - 00:59 | 00:20 | |
| | | | | 2 (OC) 3 (OO) | 00:05 - 00:59 00:05 - 00:59 | 00:20 00:40 | |
| 59 | Drain down duration | | | 0 (CC) 1 (CO) 2 (OC) 3 (OO) | 00:00 - 00:20 00:00 - 00:20 00:00 - 00:05 00:00 - 00:05 | 00:10 00:10 00:05 00:02 | |
| 49 | Liquid hold off duration (starts when drain down completed) | | | | 00:00 - 00:10 | 00:00 | |
| 8.7 DEFROST FORCING FUNCTIONS | | | | | | | |
| Forced functions remain forced if the Maintenance Unit remains plugged in. They are automatically cancelled 30 minutes after the Maintenance Unit is unplugged. | | | | | | | |
| 77 | Forced defrost (Note when item 412 is indicating Jnet network initiated defrost then forced defrost sends the command to the plant for action. It is NOT actioned locally) | OFF Fd.on | Off Forced defrost on | | 0 - 1 | | |
| 78 | Inhibit defrost | OFF no.dF | Off No defrosts | | 0 - 1 | | |
| 79 | Forced refrigeration | OFF Fr.on | Off Forced refrigeration | | 0 - 1 | | |
| 222 | Enable forced defrost requirement to defrost coordinator | oFF F.r.En | Disabled Enabled | | 0 - 1 | 0 | |
| 221 | Forced defrost requirement to defrost coordinator (requires item 222 set to 1) | 0 - 63 | Forced value | | | | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | |
|---|---|---------------------------------------|---|---|--|----------------------------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE |
| 9. FAN CONTROL | | | | | | |
| 108 | Fan control | F.on F.oFF oFF.E | Fan runs always Fan off during defrost Fans off during electric defrost | 0, 1 (CX) | 1 - 2 | F.oFF |
| | | | | 2, 3 (OX) | 1 - 3 | |
| 109 | Fan delay after defrost | 00:00 | Use evap temp | | 00:00 - 01:00 | 00:00 |
| 10. DOOR MONITORING (up to v0.00.8 and from v0.01.1) From v0.01.1 Door functions require input 2 to be set for the door input | | | | | | |
| 138 | Input 2 function selection (v0.01.1 on) | 3 4 | tr.iP door | Man trapped input Door input | | 3 - 4 tr.iP |
| 128 | Select door functions | oFF d.iP.E | | Disabled Enabled | | 0 - 1 d.iP.E |
| 34 | Time door presently open | | | | | |
| 35 | Total time door has been open in last 24 hours | | | | | |
| 64 | Door open refrigeration delay time | | | 0 (CC) 1 (CO) 2 (OC) 3 (OO) | 00:00 - 00:15 00:00 - 00:15 00:00 - 00:30 00:00 - 00:30 | 00:05 00:05 00:00 00:00 |
| 33 | Door open alarm delay time | | | | 00:00 - 00:30 | 00:15 |
| 126 | Coldstore door open critical alarm selection | non.C Crit | | Alarm non critical Alarm critical | | 0 - 1 non.C |
| 11. Jnet COMMAND FUNCTIONS | | | | | | |
| 62 | Jnet network controlled shutdown selection | oFF Sh.dn | | Disabled Enabled | | 0 - 1 oFF |
| 63 | Jnet network command for shutdown | nonE Sh.dn | | No command Shutdown | | |
| 133 | Enable plant to override temperature control and run refrigeration regardless of the temperature setpoint | Off nrc.E | | Disabled Enabled | | 0 - 1 Off |
| 134 | Enable Jnet network command to cut off refrigeration in event of plant fault | Off PFC.E | | Disabled Enabled | | 0 - 1 Off |
| 135 | Display Jnet network commands | nonE O.S.df PL.Ft P.C.Ft | | No command Other associated systems on defrost Plant fault Plant comms fault | | |
| 12. DISPLAY FUNCTIONS | | | | | | |
| 122 | Temperature display unit choice | CELS FAhr | | Celsius Fahrenheit | | 0 - 1 CELS |
| 121 | Display pushbutton status | Pb- - Pb1 - Pb- 2 Pb12 | | OFF Button 1 pressed Button 2 pressed Both buttons pressed | | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | |
|---|--|---|--|--------------------------------------|---|--------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE |
| 13. 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 |
| 14. 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 0.01.1 the physical bitswitches have been replaced by virtual bitswitches. Set this item in place of using the bitswitches which are redundant. | 0 1 2 3 | Frozen food (CO2) Frozen food (HFC) Chiller Produce (off cycle) | 0 1 2 3 | | |
| 9 | Set default values selected by Bitswitch Note: Setting the bitswitches alone has no effect. | 1234 1066 | Set default values Write to NVRAM without delay | 0 (CC) 1 (CO) 2 (OC) 3 (OO) | Frozen food (CO2) Frozen food (HFC) Chiller Produce (off cycle) where C = CLOSED or ON O = OPEN or OFF x = Don't care For unmarked switches C = dot visible O = dot not visible | |
| 15. RESTORE PARAMETERS FROM NETWORK (from v0.01.1) | | | | | | |
| 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 | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | |
|---------------------------------------|--|--------------|------------------------------|-----------------|-------|--------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE |
| 16. SYSTEM ALARMS | | | | | | |
| 80 | Group alarm 81 - 88 | 0 1 - 255 | No alarms Check 81 -88 | | | |
| 81 | Coldroom overtemperature | CLr C.Ht | No fault Fault | | | |
| 83 | Air on sensor fault | CLr AO.Pr | No fault Fault | | | |
| 84 | Air off sensor fault | CLr AF.Pr | No fault Fault | | | |
| 85 | Sensor power supply fault | CLr PS.Ft | No fault Fault | | | |
| 86 | Door open alarm (up to v0.00.8 & from v0.01.1) | OFF dO.Ft | no fault fault | | | |
| 87 | Shutdown alarm | CLr Sh.dn | No fault Fault | | | |
| 88 | All sensors faulty, deselected or disconnected | CLr t.SEn | No fault Fault | | | |
| 90 | Group alarm 91 - 98 | 0 1 - 255 | No alarms Check 91 - 98 | | | |
| 91 | Termination sensor fault | CLr dt.Pr | No fault Fault | | | |
| 92 | Evaporator sensor fault | CLr EP.Pr | No fault Fault | | | |
| 93 | Suction line sensor fault | CLr SL.Pr | No fault Fault | | | |
| 94 | Expected defrosts have not been detected <small>(Note. This alarm normally depends on the setting in item 69. When the defrost initiation strategy is set to PREDICT the alarm occurs 3 hours after the defrost requirement has been set when no defrost has occurred).</small> | CLr dEF.F | No fault Fault | | | |
| 95 | Plant alarm (v0.00.9 on) | CLr AL.iP | No fault Fault | | | |
| 97 | Excessive Superheat fault | CLr Hi.Sh | No fault Fault | | | |
| 98 | Pressure Transducer fault | CLr Pt.FL | No fault Fault | | | |
| 250 | Group alarms 251 - 258 | 0 1 - 255 | No alarms Check 251 - 258 | | | |
| 251 | Forced defrost activated | CLr F.dEF | No fault Forced defrost | | | |
| 252 | Network communications failure | CLr FAIL | No fault Comms failure | | | |
| 257 | Man trapped (v0.00.9 on) | CLr trAP | No fault Man trapped | | | |
| 258 | Backup defrost strategy in operation | CLr d.bAc | No fault Backup defrost | | | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | |
|--|--|-----------------------------------|--|--------------------------------------|-------|--------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE |
| 17. DIAGNOSTIC & TEST FUNCTIONS | | | | | | |
| 44 | Power off duration | | | | | |
| 6 | Communications speed (in kilo baud) | 4.8 | Baud rate | | | |
| 7 | Communications (Half duplex) | HALF | 2 wire | | | |
| 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 | | | | |
| 967 | Latest unit number polled on zone (from v0.01.1) | | | | | |
| 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 setting | 0 1 2 3 | Frozen food (CO2) Frozen food (HFC) Chiller Produce (off cycle) | 0 (CC) 1 (CO) 2 (OC) 3 (OO) | | |
| 89 | Sensor excitation value (Factory test) | | Not used | | | |
| 99 | Test digital display | CLr SEt | Not active Test active | | 0 - 1 | |
| 100 | Test inputs | iP - - iP1 - iP - 2 iP12 | No inputs Input 1 on Input 2 on Both inputs on | | | |
| 101 | Test output relays | CLr SEt | Not active Test active | | 0 - 1 | |
| 121 | Display pushbutton status | Pb- - Pb1 - Pb- 2 Pb12 | OFF Button 1 pressed Button 2 pressed Both buttons pressed | | | |
| 421 | Temperature sensor 1 reading | | | | | |
| 422 | Temperature sensor 2 reading | | | | | |
| 423 | Temperature sensor 3 reading | | | | | |
| 424 | Temperature sensor 4 reading | | | | | |

| JTL COLDSTORE CONTROLLER ITEM NUMBERS | | | | | LACI | |
|---------------------------------------|------------------------------|--------------|----------------------------|-----------------|-------|--------------|
| ITEM | DESCRIPTION | CODE | CODE MEANING | FACTORY DEFAULT | RANGE | ITEM 9 VALUE |
| 425 | Temperature sensor 5 reading | | | | | |
| 204 | Unadjusted suction pressure | | | | | |
| 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 | | LACI |
|--|--|------|
| NORMAL DISPLAY | | |
| - 99 ^c | Coldroom temperature (item 20 rounded) | |
| dEF | Defrost | |
| dEFr | Defrost recovery | |
| OFF | Shutdown | |
| FAnS | Fans only | |
| -- | Display data error | |
| JTL | Start-up text | |
| ALARM TEXT (in descending priority order) | | |
| t.SEn | All sensors faulty, deselected or disconnected | |
| Ht | High Coldroom temperature | |
| trAP | Man trapped in | |
| AL.IP | Plant fault input | |
| ISOL | Unit shutdown | |
| door | Door open alarm | |