

| OPERATOR PAGE PARAMETERS |   |
|--------------------------|---|
| Parameters               | Settings (Default Value)  |
| Time Start Command >>    | Yes   |
| Time Abort Command >>    | No<br>(Default : No)  |
| Time Interval (H:M) >>   | 0.00 to 500.00<br>(HH:MM)<br>(Default : 0.10)   |
| Ctrl Set Value >>        | Setpoint LO limit to Setpoint HI limit<br>(Resolution 0.1°C for RTD / DC Linear & 1°C for Thermocouple)<br>(Default : 25.0) |
| Ctrl Lo Deviation >>     | For RTD & DC Linear: 0.2 to 99.9<br>For Thermocouple: 2 to 99<br>(Default : 2.0)  |
| Ctrl Hi Deviation >>     | For RTD & DC Linear: 0.2 to 99.9<br>For Thermocouple: 2 to 99<br>(Default : 2.0)  |
| Change Password >>       | 1 to 100<br>(Default : 0)   |

| SUPERVISORY > PASSWORD |                                 |
|------------------------|---------------------------------|
| Parameters             | Settings (Default Value)        |
| Change Password >>     | 1000 to 1999<br>(Default : 123) |

| SUPERVISORY > EXIT |                             |
|--------------------|-----------------------------|
| Parameters         | Settings (Default Value)    |
| Exit Setup Mode >> | Yes<br>No<br>(Default : No) |

| FACTORY > CONTROL SENSOR INPUT |  |                      |         |
|--------------------------------|--|----------------------|---------|
| Parameters                     | Settings (Default Value)               |                      |         |
| Input Type >>                  | Refer Table 1<br>(Default : RTD Pt100) |                      |         |
| Signal LO >>                   | Input Type                             | Settings             | Default |
|                                | 0 to 20mA                              | 0.00 to Signal High  | 0.00    |
|                                | 4 to 20mA                              | 4.00 to Signal High  | 4.00    |
|                                | 0 to 5V                                | 0.000 to Signal High | 0.000   |
|                                | 0 to 10V                               | 0.00 to Signal High  | 0.00    |
|                                | 1 to 5V                                | 1.000 to Signal High | 1.000   |
| Signal HI >>                   | Input Type                             | Settings             | Default |
|                                | 0 to 20mA                              | Signal Low to 20.00  | 20.00   |
|                                | 4 to 20mA                              | Signal Low to 20.00  | 20.00   |
|                                | 0 to 5V                                | Signal Low to 5.000  | 5.000   |
|                                | 0 to 10V                               | Signal Low to 10.00  | 10.00   |
|                                | 1 to 5V                                | Signal Low to 5.000  | 5.000   |

| SUPERVISORY > SENSOR INPUT |   |
|----------------------------|---|
| Parameters                 | Settings (Default Value)  |
| Ctrl Zero Offset >>        | -50 to 50<br>(Resolution 0.1°C for RTD / DC Linear & 1°C for Thermocouple)<br>(Default : 0.0) |

| SUPERVISORY > CONTROL  |  |
|------------------------|--|
| Parameters             | Settings (Default Value)   |
| Tune >>                | Yes<br>No<br>(Default : No)  |
| Setpoint LO Limit >>   | Min Range for the Selected Input Type to Setpoint HI Limit<br>(Resolution 0.1°C for RTD / DC Linear & 1°C for Thermocouple)<br>(Default : 0.0)   |
| Setpoint HI Limit >>   | Setpoint LO Limit to Max Range for the Selected Input Type<br>(Resolution 0.1°C for RTD / DC Linear & 1°C for Thermocouple)<br>(Default : 600.0) |
| Compressor Setpoint >> | 0 to 100<br>(Resolution 0.1°C for RTD / DC Linear & 1°C for Thermocouple)<br>(Default : 45.0)  |
| Compressor Hyst >>     | 0.1 to 99.9<br>(Default : 2.0)   |
| Heat Ctrl Action >>    | ON-OFF<br>PID<br>(Default : PID)   |
| Heat Hyst >>           | 0.1 to 99.9<br>(Default : 0.2)   |

| FACTORY > ALARM PARAMETERS |                                |  |  |
|----------------------------|--------------------------------|--|--|
| Parameters                 | Settings (Default Value)       |  |  |
| Hysteresis >>              | 0.1 to 99.9<br>(Default : 0.2) |  |  |
| Inhibit >>                 | Yes<br>No<br>(Default : Yes)   |  |  |

| FACTORY > HEAT COOL SELECT |   |                                      |  |
|----------------------------|---|--------------------------------------|--|
| Parameters                 | Settings (Default Value)  |                                      |  |
| Control Strategy >>        | Heat Only<br>Cool Only<br>Heat + Cool<br>(Default : Heat + Cool)                              |                                      |  |
| Time Delay (sec) >>        | 0 to 1000 Sec<br>(Default : 200 Sec)  |                                      |  |
| Compressor Strategy >>     | CONT. OFF<br>CONT. ON<br>SP BASED<br>PV BASED<br>(Default : CONT. ON)                         |                                      |  |
| CONT. ON                   | SP BASED  | PV BASED                             |  |
| Time Delay (sec) >>        | Boundary Set Value >>   | Time Delay (sec) >>                  |  |
|                            | 0 to 100<br>(Resolution 0.1°C for RTD / DC Linear & 1°C for Thermocouple)<br>(Default : 45.0) | 0 to 1000 Sec<br>(Default : 200 Sec) |  |
|                            | Control Zones >>  |                                      |  |
|                            | Single<br>Dual<br>(Default : Single)  |                                      |  |
|                            | Time Delay (sec) >>   |                                      |  |
|                            | 0 to 1000 Sec<br>(Default : 200 Sec)  |                                      |  |

| Heat Only Control                        | Heat + Cool Control Zone : Single        | Heat + Cool Control Zone : Dual  |
|--|--|--|
| Proportional Band >>                     | Proportional Band >>                     | Cz Prop Band >>  |
| 0.1 to 999.9<br>(Default : 50.0)         | 0.1 to 999.9<br>(Default : 50.0)         | Proportional Band for Cool Pre-dominant zone<br>0.1 to 999.9<br>(Default : 50.0) |
| Integral Time >>                         | Integral Time >>                         | Cz Integral Time >>  |
| 0 to 3600 sec<br>(Default : 100 sec)     | 0 to 3600 sec<br>(Default : 100 sec)     | Integral Time for Cool Pre-dominant zone<br>0 to 3600 sec<br>(Default : 100 sec) |
| Derivative Time >>                       | Derivative Time >>                       | Cz Derivative Time >>  |
| 0 to 600 sec<br>(Default : 16 sec)       | 0 to 600 sec<br>(Default : 16 sec)       | Derivative Time for Cool Pre-dominant zone<br>0 to 600 sec<br>(Default : 16 sec) |
| Cycle Time >>                            | Cycle Time >>                            | Hz Prop Band >>  |
| 0.5 to 100.0 sec<br>(Default : 10.0 sec) | 0.5 to 100.0 sec<br>(Default : 10.0 sec) | Proportional Band for Heat Pre-dominant zone<br>0.1 to 999.9<br>(Default : 45.0) |
| Overshoot Inhibit >>                     | Overshoot Inhibit >>                     | Hz Integral Time >>  |
| Enable<br>Disable<br>(Default : Disable) | Enable<br>Disable<br>(Default : Disable) | Integral Time for Heat Pre-dominant zone<br>0 to 3600 sec<br>(Default : 100 sec) |
| Cutoff Factor >>                         | Cutoff Factor >>                         | Hz Derivative Time >>  |
| 1.0 to 2.0 sec<br>(Default : 1.2 sec)    | 1.0 to 2.0 sec<br>(Default : 1.2 sec)    | Derivative Time for Heat Pre-dominant zone<br>0 to 600 sec<br>(Default : 16 sec) |
|  |  | Cycle Time >>  |
|  |  | 0.5 to 100.0 sec<br>(Default : 10.0 sec)   |
|  |  | Overshoot Inhibit >>   |
|  |  | Enable<br>Disable<br>(Default : Disable)   |
|  |  | Cutoff Factor >>   |
|  |  | 1.0 to 2.0 sec<br>(Default : 1.2 sec)  |

| Parameters           | Settings (Default Value)                              |
|----------------------|---|
| Holdback Strategy >> | None<br>Up<br>Down<br>Both<br>(Default : None)        |
| Hold Band >>         | 0.1 to 999.9<br>(Default : 0.5)                       |
| Heat Off >>          | No<br>Yes<br>(Default : No)                           |
| Cool Off >>          | No<br>Yes<br>(Default : No)                           |
| Power Recovery >>    | Abort<br>Restart<br>Continuous<br>(Default : Restart) |

| FACTORY > DOOR OPEN     |  |
|-------------------------|--|
| Parameters              | Settings (Default Value)   |
| Enable >>               | Yes<br>No<br>(Default : No)  |
| Switch Logic >>         | Close : Door Open<br>Open : Door Open<br>(Default : Close : Door Open) |
| Door Alarm Dly (sec) >> | 0 to 1000 Sec<br>(Default : 60 Sec)                                    |

| FACTORY > MAINS FAILURE |   |
|-------------------------|---|
| Parameters              | Settings (Default Value)  |
| Enable >>               | Yes<br>No<br>(Default : No)   |
| Switch Logic >>         | Close : Mains Fail<br>Open : Mains Fail<br>(Default : Close : Mains Fail) |

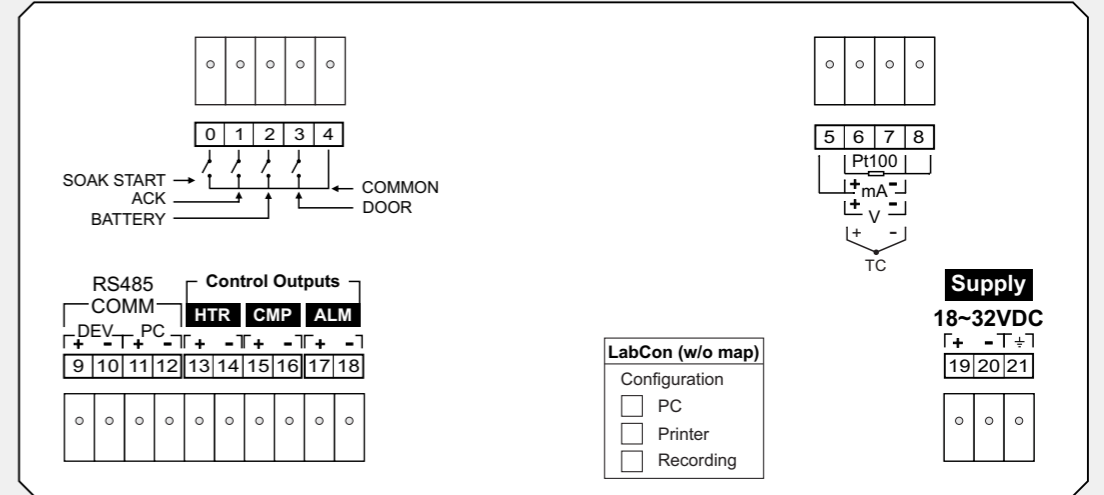
| FACTORY > PASSWORD |                                 |
|--------------------|---------------------------------|
| Parameters         | Settings (Default Value)        |
| Change Password >> | 2000 to 2999<br>(Default : 321) |

| FACTORY > FACTORY DEFAULT |                             |
|---------------------------|-----------------------------|
| Parameters                | Settings (Default Value)    |
| Set To Default >>         | Yes<br>No<br>(Default : No) |

| FACTORY > EXIT     |                             |
|--------------------|-----------------------------|
| Parameters         | Settings (Default Value)    |
| Exit Setup Mode >> | Yes<br>No<br>(Default : No) |

| TABLE 1               |  |                |
|-----------------------|--|----------------|
| What it means         | Range (Min. to Max.)   | Resolution     |
| Type J Thermocouple   | 0 to +960°C  | Fixed 1°C      |
| Type K Thermocouple   | -200 to +1376°C  |                |
| Type T Thermocouple   | -200 to +385°C   |                |
| Type R Thermocouple   | 0 to +1770°C   |                |
| Type S Thermocouple   | 0 to +1765°C   |                |
| Type B Thermocouple   | 0 to +1825°C   |                |
| Type N Thermocouple   | 0 to +1300°C   | Fixed 0.1 unit |
| Reserve               | Reserved for customer specific Thermocouple type not listed above. The type shall be specified in accordance with the ordered (optional on request) Thermocouple type. |                |
| 3-wire, RTD Pt100     | -199.9 to 600.0°C  |                |
| 0 to 20mA DC current  |  |                |
| 4 to 20mA DC current  |  | Fixed 0.1 unit |
| 0 to 5.0V DC voltage  | -199.9 to 999.9 units  |                |
| 0 to 10.0V DC voltage |  |                |
| 1 to 5.0V DC voltage  |  |                |

## ELECTRICAL CONNECTIONS



## FRONT PANEL KEYS

| Symbol | Key               | Function   |
|--------|-------------------|--|
|        | Scroll            | Press to scroll through various Process Information Screens in Normal Operation Mode.  |
|        | Alarm Acknowledge | Press to acknowledge and mute (if active) alarm output.  |
|        | DOWN              | Press to decrease the parameter value. Pressing once decreases the value by one count; keeping pressed speeds up the change. |
|        | UP                | Press to increase the parameter value. Pressing once increases the value by one count; keeping pressed speeds up the change. |
|        | SET-UP            | Press to enter or exit set-up mode.  |
|        | ENTER             | Press to store the set parameter value and to scroll to the next parameter.  |

## PV ERROR INDICATIONS

| Message     | Error Type  | Cause                                  |
|-------------|-------------|--|
| <b>OPEN</b> | Sensor Open | Sensor (RTD Pt100) Broken / Open       |
| <b>OVR</b>  | Over-range  | Temperature above Max. Specified Range |
| <b>UNR</b>  | Under-range | Temperature below Min. Specified Range |