

OPERATOR PAGE PARAMETERS

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

SUPERVISORY > SENSOR INPUT

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

SUPERVISORY > RECORDING

| Parameters                     | Settings (Default Value)                        |
|--------------------------------|-------------------------------------------------|
| Rec. Interval (min) >>         | 0 to 250 Min (Default : 5 Min)                  |
| Alarm Toggle Record >>         | Enable Disable (Default : Enable)               |
| Del PC Records >>              | Yes No (Default : No)                           |
| Del Display Record >>          | Yes No (Default : No)                           |
| GSM Machine ID >> (refer note) | 1 to 128 (Default : 1)                          |
| RTC Time >>                    | 0 to 23 for Hour 0 to 59 for Min (Default : NA) |
| RTC Date >>                    | 1 to 31 (Default : NA)                          |
| RTC Month >>                   | 1 to 12 (Default : NA)                          |
| RTC Year >>                    | 2000 to 2099 (Default : NA)                     |
| Device Id >>                   | 1 to 127 (Default : 1)                          |

SUPERVISORY > CONTROL

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

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

SUPERVISORY > PASSWORD

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

SUPERVISORY > EXIT

| Parameters         | Settings (Default Value) |
|--------------------|--------------------------|
| Exit Setup Mode >> | Yes No (Default : No)    |

| FACTORY > CONTROL SENSOR INPUT |                                        |                      |         |
|--------------------------------|----------------------------------------|----------------------|---------|
| Parameters                     | Settings<br>(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   |
| Range LO >>                    | -199.9 to RANGE HI<br>(Default : 0.0)  |                      |         |
| Range HI >>                    | RANGE LO to 999.9<br>(Default : 100.0) |                      |         |

FACTORY > ALARM PARAMETERS

| Parameters    | Settings (Default Value)    |
|---------------|-----------------------------|
| Hysteresis >> | 0.1 to 99.9 (Default : 0.2) |
| Inhibit >>    | Yes No (Default : Yes)      |

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

FACTORY > SOAK TIMER PARAMETERS

| Parameters           | Settings (Default Value)                     |
|----------------------|----------------------------------------------|
| Enable >>            | No Yes (Default : No)                        |
| Start Band >>        | 0 to 999.9 (Default : 0.5)                   |
| Holdback Strategy >> | None Up Down Both (Default : None)           |
| Hold Band >>         | 0.1 to 999.9 (Default : 0.5)                 |
| Heat Off >>          | No Yes (Default : No)                        |
| Cool Off >>          | No Yes (Default : No)                        |
| Power Recovery >>    | Abort Restart Continuous (Default : Restart) |

FACTORY > DOOR OPEN

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

FACTORY > MAINS FAILURE

| Parameters      | Settings (Default Value)                                            |
|-----------------|---------------------------------------------------------------------|
| Enable >>       | Yes No (Default : No)                                               |
| Switch Logic >> | Close : Mains Fail Open : Mains Fail (Default : Close : Mains Fail) |

FACTORY > SMS ALERT

| Parameters                       | Settings (Default Value) |
|----------------------------------|--------------------------|
| Enable >> (refer note)           | Yes No (Default : No)    |
| Reset GSM Module >> (refer note) | Yes No (Default : No)    |

Note : These parameters are available only if the controller supplied with GSM module version.

FACTORY > PASSWORD

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

FACTORY > FACTORY DEFAULT

| Parameters        | Settings (Default Value) |
|-------------------|--------------------------|
| Set To Default >> | Yes No (Default : No)    |

FACTORY > EXIT

| Parameters         | Settings (Default Value) |
|--------------------|--------------------------|
| Exit Setup Mode >> | Yes No (Default : No)    |

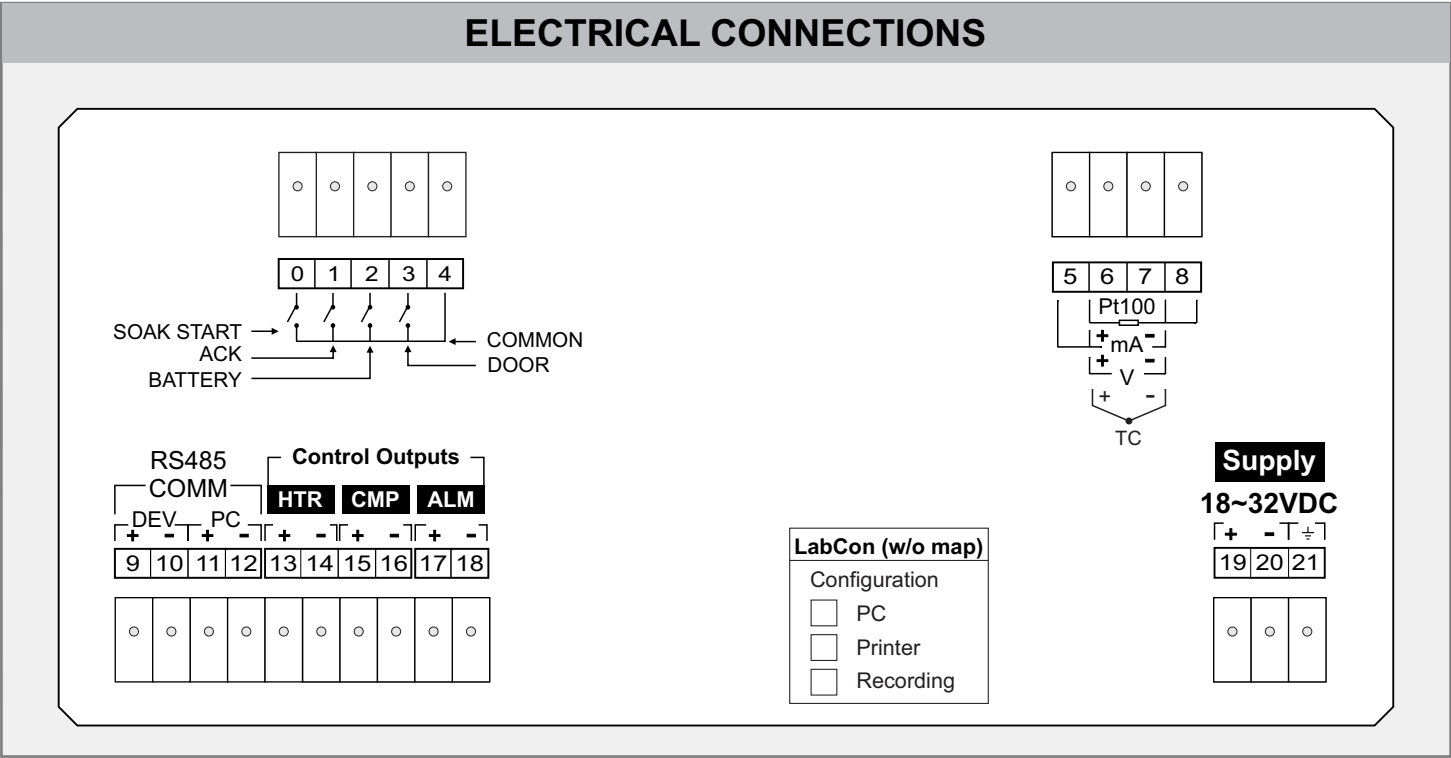
| What it means         | Range (Min. to Max.)                                                                                                                                                   | Resolution        |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Type J Thermocouple   | 0 to +960°C                                                                                                                                                            | Fixed<br>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                                                                                                                                                           |                   |
| 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                                                                                                                                                      | Fixed<br>0.1°C    |
| 0 to 20mA DC current  | -199.9 to 999.9 units                                                                                                                                                  | Fixed<br>0.1 unit |
| 4 to 20mA DC current  |                                                                                                                                                                        |                   |
| 0 to 5.0V DC voltage  |                                                                                                                                                                        |                   |
| 0 to 10.0V DC voltage |                                                                                                                                                                        |                   |
| 1 to 5.0V DC voltage  |                                                                                                                                                                        |                   |

PV ERROR INDICATIONS

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

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.                                                  |



- LabCon (w/o map)
- Configuration
  - PC
  - Printer
  - Recording

Supply 18~32VDC