

1. CAUTIONS :

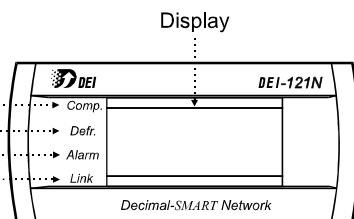
- 1.1 Before wiring, please make sure the power is switched off to prevent getting electric shock.
- 1.2 The product should be avoided to be installed at humid environment.
- 1.3 To prevent the controller burning out, please make sure the water - proof procedures are undertaken during installation.
- 1.4 Please install the controller according to wiring diagram.
- 1.5 Before supplying power, please always check if the wiring and power is connected correctly.
- 1.6 Please always read this instruction carefully before installation. The controller is beyond our warranty if any damage is caused by wrong wiring.

2. SPECIFICATION :

2.1 Appearance description :

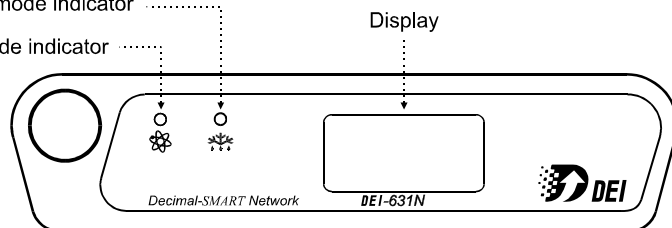
2.1.1 DEI-121N :

- Cooling mode indicator
- Defrosting mode indicator
- Alarming status indicator
- Linking status indicator



2.1.2 DEI-631N :

- Defrosting mode indicator
- Cooling mode indicator



2.2 Dimension :

- 2.2.1 DEI-121N : 36mm (H) × 80mm (W) ± 1mm.
- 2.2.2 DEI-631N : 40mm (H) × 170mm (W) ± 1mm.

2.3 Mounting hole size :

- 2.3.1 DEI-121N : 30mm (H) × 72mm (W) × 30 (D) ± 1mm.
- 2.3.2 DEI-631N : 33mm (H) × 140mm (W) ± 1mm.

2.4 Operating environmental temperature : -5℃ ~ 55℃ , < 90%RH (non - condensing).

2.5 Storage environmental temperature : -10℃ ~ 65℃ , < 90%RH (non - condensing).

2.6 Power supply : DC 5V.

2.7 Power consumption : Max. 5 watts (controller only).

2.8 Temperature display range : -40.0℃ ~ 50.0℃ / -40.0°F ~ 99.0°F.

2.9 Temperature readout step : 0.5℃ / 1°F.

2.10 Output / Input :



- 2.10.1 Communication format : RS485 communication port 1 set.
- 2.10.2 Max. communication distance : 10 meters.
- 2.10.3 Recommended communication wire : UL 2464 / 26 AWG.

3. FUNCTION :

3.1 DEI-121N :

- 3.1.1 Start - up display : Once start - up the controller, the display shows the version, cabinet temperature and enter the normal operation status.
- 3.1.2 LED indicators : (from up to down)
 - 3.1.2.1 "Comp." cooling status indicator : Indicator is ON when cooling output is ON.
 - 3.1.2.2 "Defr." defrost mode indicator : The indicator is ON when under defrosting.
 - 3.1.2.3 "Alarm" failure alarm indicator : It blinks under failure or alarm status, and display shows the errors codes for 1 second ON and 1 second OFF. This indicator is OFF the errors are eliminated.
 - 3.1.2.4 "Link" linking status indicator : It blinks when linking in progress or in linked status for 1 second ON and 1 second OFF. This indicator is OFF when under the abnormal communication.
- 3.1.3 In Fahrenheit unit, the last digit of display is shown "F".

3.2 DEI-631N :

- 3.2.1 Start - up display : Once start up the controller, the display shows the version, cabinet temperature and enter the normal operation status.
- 3.2.2 DEI-631N LED indicators :
 - 3.2.2.1  Cooling status indicator (Green LED) : Indicator is ON when cooling output is ON.
 - 3.2.2.2  Defrost mode indicator (Red LED) : The indicator is ON when under defrosting.
- 3.3.3 In Fahrenheit unit, the last digit of display is shown "F".

4. FAILURE ELIMINATION : (If failure occurred, error codes will blink)

- 4.1 " EC " indicates communication error (please check if the communication wire is connected correctly).
- 4.2 " EP " indicates the error of compressor protection for high and low pressure, compressor output is cut off.
- 4.3 If errors occur as below, the compressor operation will base on "Cr" (Time for compressor ON when under sensor failure) to start - up and base on "CS" (Time for compressor OFF when under sensor failure) to stop.
 - 4.3.1 " E1 " indicates cabinet probe failure (Please check if sensor is in error or replace a new one).
 - 4.3.2 " E2 " indicates evaporator probe failure (Please check if sensor in error or replace a new one).
 - 4.3.3 " EE " indicates memory failure (re - supply the power of power board, and it will operate by the default values).
- 4.4 Error codes : (They are effective only when cabinet temperature reaches the setpoint from the first time. When under the alarm status, the error codes and cabinet temperature shown on the display alternately).
 - 4.4.1 "UA" indicates cabinet temperature ≥ AU (max. temperature for alarm).
 - 4.4.2 "LA" indicates cabinet temperature ≤ AL (min. temperature for alarm).