

LCD Group Control Panel

【Description】

NVE20V LCD group control panel is a field operation man-machine interface for DF series microcomputer fan coil unit controller. It has a two wire RS485 network communication capabilities, with up to 16 DFE controllers can be connected into a community network. Users can use NVE20V to control Fan Coil Unit devices by single or group, for example manual On/Off control, timer shutdown Off control, change air-conditioning mode, change fan speed, change temperature set point etc, in addition NVC51V can monitor each device operation status, for example air-conditioning running status, fan speed status, present temperature status, fault and alarm condition etc.



【Features】

- Use 16 bit microprocessor, high precise operation.
- Use two-wire communication network, Easy for wiring.
- The large-scale LCD with the blue back light illumination is good for display temperature value, setting value, fan speed, air conditioning mode and abnormal state.
- Group or single operation of selectable air condition running mode (automatic, cooling, heating and fan) and selectable fan speed (automatic, high, normal and low speed) and energy conservation, comfort mode functions.
- Has group or single power off timer, may facilitate the overtime work situation.
- With a backup battery, it will keep data in memory for more than a year without power.
- Included self wakeup function (Watch Dog) when software is down.
- Key lock function to prevent unauthorized operation.

【Specification】

Model	A/C Mode	Fan speed	Comfort Running	Energy Save Running	Timer Shutdown	Schedule Turn On	Schedule Turn Off	Clock Display	Valve Action Display	Backup Battery	Decimal Scale
NVE20V	Auto/Cold/Heat/Fan	Auto/High/ Med./Low	Y	Y	0-24hr	Y	Y	Y	Y	Y	0.1℃

Power Supply : 5~12VDC, 35mA. (Power sources offer by DF. controller.)

Microprocessor : 16 bit high speed processor

LCD Display : 45mm*35mm display size. It has dynamic graphic display with back light.

Control Range : 15~32℃ (59~89.6°F)

Decimal Scale : Parameter selection can be 0.1℃, 0.5℃, 1℃ three decimal scale

Keypad : 20 operation buttons with key lock function.

SCnet Port : 2 wire MODBUS RTU standard RS-485 communication.

Environment : 0~70℃, 0~95%RH non-condensing.

【Network】



FIG. 1 NVE20V application network architecture diagram

【Installation】

- Please install this display panel located 1.2M above ground with good ventilation.
- When installation, the first step remove the bottom plate of NVE20V (as shown in Figure 2), the second step will be fixed the bottom plate on the wall flat and smoothly, the third step connect the cable to the control panel (as shown in Figure 3), the fourth step will be hung the cover from above into the bottom plate, the fifth step gently press the bottom of cover until heard a snapped sound, and then means the installation is complete (as shown in Figure 4).
- When disassembly, use a small slotted screwdriver to prize open the cover at the bottom of the middle (as shown in Figure 5), and then pulled up around the average force (as shown in Figure 6)

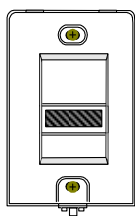


FIG. 2

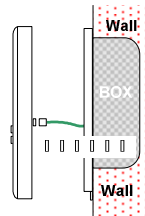


FIG. 3

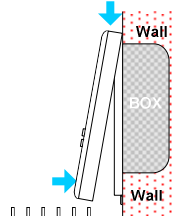


FIG. 4



FIG. 5

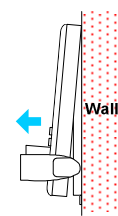


FIG. 6

【Wiring】

- Read and follow the wiring instruction in this document to prevent danger or damage results.
- Installer should be a trained and an experienced technician.
- Turn off power when wiring. Electric shock or equipment damage may cause serious injury.
- NVE20V must be connected to a MAC address number 0 of DFE controller, wiring sequence must follow the color line wiring (as shown in Figure 7).
- NVE20V network communications using RS-485 transmission, please use wire 4C#AWG18 ~22 shielded twisted configuration, and placed in metal conduit EMT piping. Do not place with the power lines or other power lines condominium to avoid interference.
- RS-485 network must comply with one in one out rule to configure, does not be T shape or star shape configuration.
- RS485 network should be installed around the 120Ω termination resistors at both end, the total length should not exceed 1,200 M.

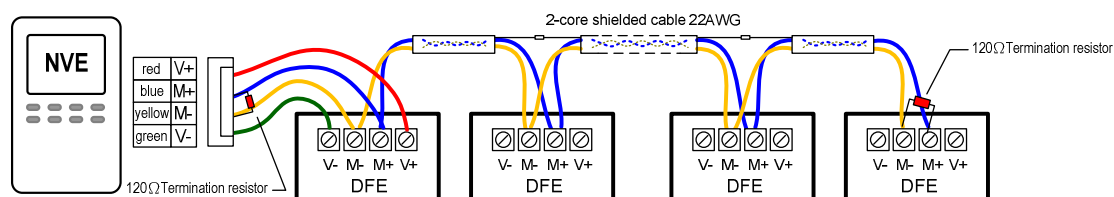
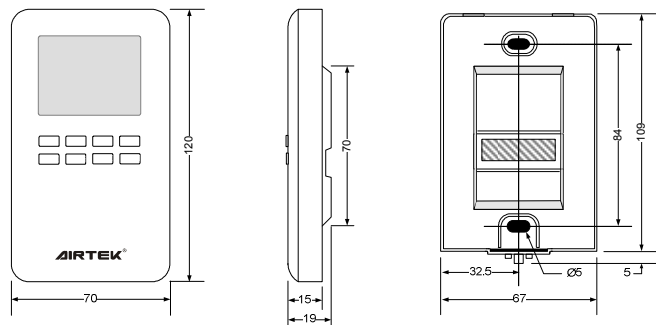


FIG. 7 NVE20V wiring diagram in the FCnet network

【Dimensions】 Unit : mm



Please refer to <http://www.airtek.com.au> for the most recent updated information.